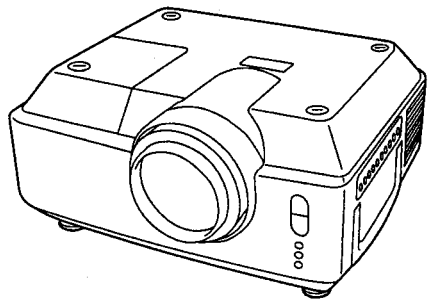
V12630

SHARP

SERVICE MANUAL
SERVICE-ANLEITUNG

S25L3XV370P//



SECAM/PAL/NTSC SYSTEM
LCD PROJECTOR
LCD PROJEKTOR

MODEL MODELL XV-370P

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used

Im Interesse der Benutzersicherheit (erforderliche Sicherheitsregeln in einigen Ländern) muß das Gerät in seinen Originalzustand gebracht werden. Außerdem dürfen für die spezifizierten Bauteile nur identische Teile verwendet werden.

CONTENTS

	Page
• SPECIFICATIONS	2
• NOTE TO SERVICE PERSONNEL	3
• LOCATION OF CONTROLS	4
• REMOVAL OF MAJOR PARTS	12
• FACTORY MODE ADJUSTMENT	17
• ELECTRICAL ADJUSTMENT	20
• TROUBLESHOOTING TABLE	24
• CHASSIS LAYOUT	55
• OVERALL WIRING DIAGRAM	57
• DESCRIPTION OF SCHEMATIC DIAGRAMS	59
• WAVEFORMS	60
• SCHEMATIC DIAGRAM	61
• PRINTED WIRING BOARD ASSEMBLIES	71
• BLOCK DIAGRAM	77
• PARTS LIST	
□ ELECTRICAL PARTS	81
□ CABINET AND MECHANICAL PARTS	96
□ PACKING PARTS	98
□ SUPPLIED ACCESSORIES	98
• PACKING OF THE SET	99

INHALT

	Seite
• TECHNISCHE DATEN	2
• HINWEISE FÜR DEN WARTUNGSTEHNIKER	29
• LAGE DER REGLER	30
• AUSBAU DER HAUPTKOMPONENTEN	38
• FACTORY-EINSTELLMODUS (Hersteller-Einstellmodus)	43
• ELEKTRISCHE EINSTELLUNG	46
• TABELLE FÜR STÖRUNGSSUCHE	50
• CHASSISANORDNUNGSPLAN	55
• GESAMTSCHALTPLAN	57
• BESCHREIBUNG DES SCHEMATISCHEN SCHALTPLANS	59
• WELLENFORMEN	60
• SCHEMATISCHER SCHALTPLAN	61
• PLATINENEINHEITEN	71
• BLOCKSCHALTPLAN	77
• ERSATZTEILLISTE	
□ ELEKTRISCHE TEILE	81
□ GEHÄUSE UND MECHANISCHE BAUTEILE	96
□ VERPACKUNGSTEILE	98
□ ZUBEHÖR	98
• VERPACKEN DES GERÄTS	99

SHARP CORPORATION

SPECIFICATIONS

System:	PAL/SECAM/NTSC3.58/NTSC4.43 SYSTEM
Projection image size (diagonal):	76 cm (30 inch) at a distance of approx. 1.1 m 381 cm (150 inch) at a distance of approx. 5.1 m
LCD panels:	9.1 cm (3.6") TFT Active Matrix panel
No. of pixels:	301,158 dots (468(V) x 634.5(H))
Lens:	F2.8 f = 128 mm
Contrast ratio:	100:1
Horizontal resolution:	More than 320 lines
Operating temperature:	5°C ~ 40°C
Storage temperature:	– 20°C ~ 55°C
Power Source:	AC 200 ~ 240V, 50/60Hz
Audio output:	3W MAX (monoural)
Speaker:	8 cm (Round speaker)
Power consumption:	175W
Dimensions (W x H x D):	355 mm x 201 mm x 341 mm
Weight:	approx. 6.5Kg

Specifications are subject to change without notice.

TECHNISCHE DATEN

System:	PAL/SECAM/NTSC 3,58/NTSC4,43-SYSTEM
Projektionsgröße(diagonal):	76cm (30 Zoll) bei einem Abstand von ca. 1,1 m 381cm (150 Zoll) bei einem Abstand von ca. 5,1 m
LCD-Projektionspanel:	9,1cm (3,6 Zoll) TFT Aktivmatrixpanel
Anzahl der Punkte:	301.158 Bildpunkte (468 V x 643,5 H)
Objektiv:	F = 2,8 f = 128mm
Kontrastverhältnis:	100:1
Horizontale Auflösung:	Mehr als 320 Zeilen
Betriebstemperatur:	5℃ ~40℃
Lagertemperatur:	– 20℃ ~55℃
Stromversorgung:	220~240V Wechselstrom, 50/60Hz
Tonausgangsleistung:	max. 3W (monoaural)
Lautsprecher:	8cm (Rundlautsprecher)
Nennaufnahme:	175W
Abmessungen (B x H x T):	355 x 201 x 341 mm
Gewicht:	ca. 6,5kg

Änderungen der technischen Daten vorbehalten.

NOTE TO SERVICE PERSONNEL

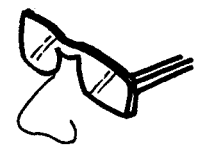
UV-RADIATION PRECAUTION

The light source, metal halide lamp, in the LCD projector emits small amounts of UV-Radiation.

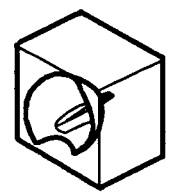
AVOID DIRECT EYE AND SKIN EXPOSURE.

To ensure safety please adhere to the following:

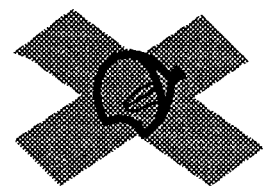
1. Be sure to wear sun-glasses when servicing the projector with the lamp turned "on" and the top enclosure removed.



2. Do not operate the lamp outside of the lamp housing.



3. Do not operate for more than 2 hours with the enclosure removed.



UV-Radiation and Medium Pressure Lamp Precautions

1. Be sure to disconnect the AC plug when replacing the lamp.
2. Allow one hour for the unit to cool down before servicing.
3. Replace only with same type lamp. Type **CLMPF0022DE04** rated 65V/120W.
4. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
5. The medium pressure lamp involves a risk of explosion. Be sure to follow installation instructions described below and handle the lamp with care.

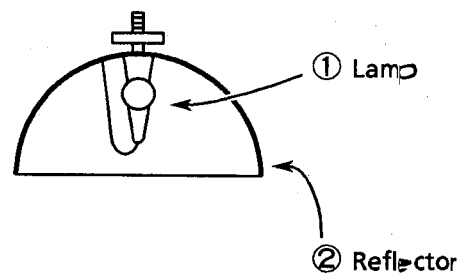
■ Lamp Replacement

Note:

Since the lamp reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off. (to allow the lamp to cool off.)

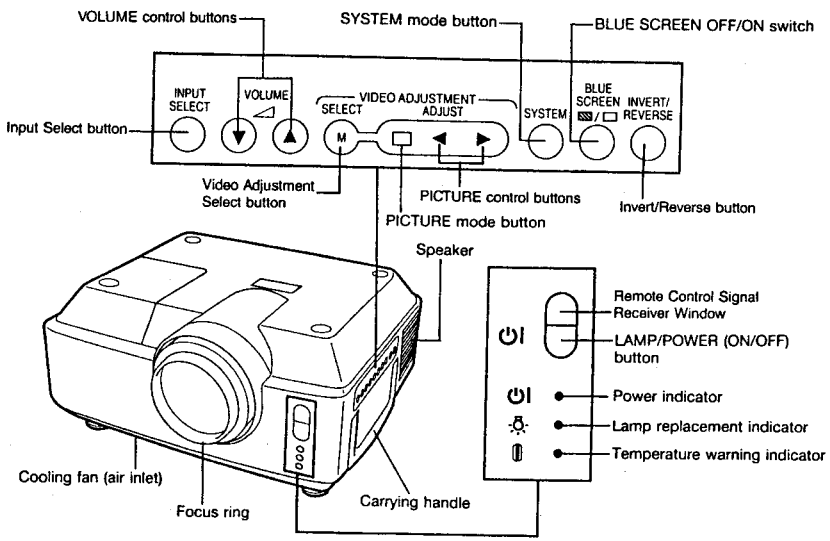
Installing the new lamp, make sure not to touch the lamp (bulb) replace the lamp by holding its reflector ②.

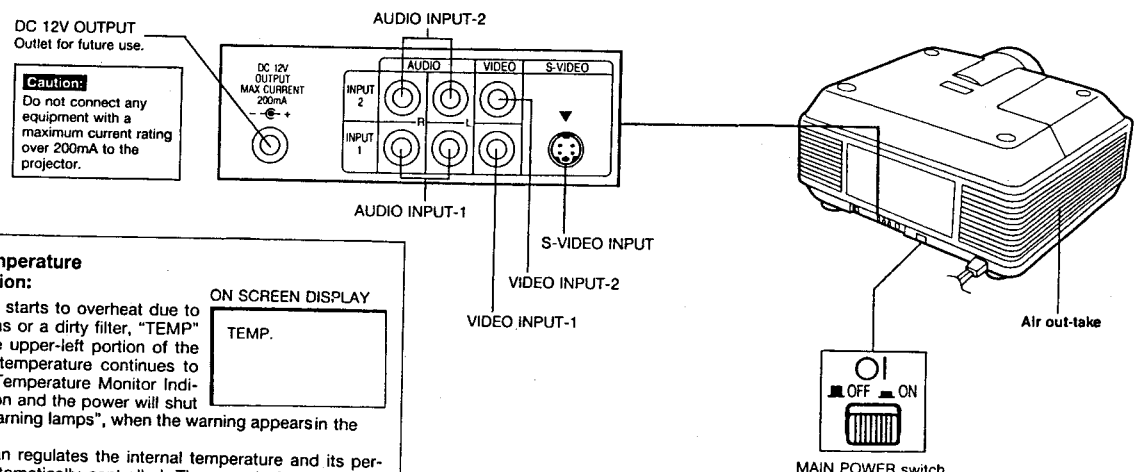
[Use original replacement only.]



DANGER ! — Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages at its start.

Location of Controls





About the Temperature Monitor Function:

- If the projector starts to overheat due to set-up problems or a dirty filter, "TEMP" will flash in the upper-left portion of the picture. If the temperature continues to rise, then the Temperature Monitor Indicator will turn on and the power will shut off, refer to "Warning lamps", when the warning appears in the picture.

ON SCREEN DISPLAY

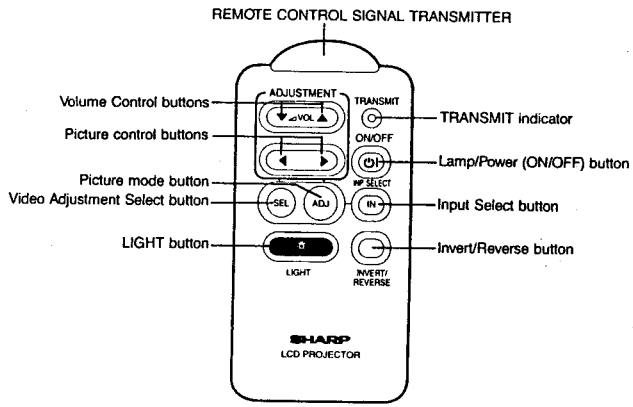
TEMP.

- The Cooling Fan regulates the internal temperature and its performance is automatically controlled. The sound of the fan may change during operation due to changes in the fan speed.

REMOTE CONTROL

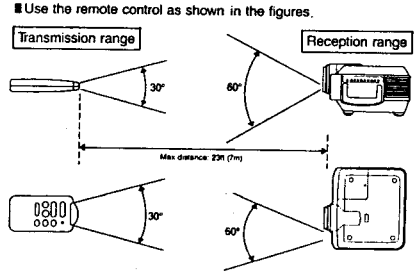
Remote control handling precautions

Do not expose the remote control to shocks, liquids or high humidity. The remote control may not operate normally if exposed to direct sunlight or other intense light sources. Should this happen, reposition the light source or the LCD Projector.



Remote control operation

- Use the remote control as shown in the figures.



Using the remote control in a dark room

Press the LIGHT button.

- This will cause the operation buttons to stay lit for about 5 seconds.

Note:
The operation button lights temporarily go off when the buttons are pressed.

Setting Up the Projector

Installation precautions

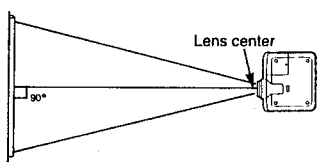
Caution: When you set up the projector

- Do not place it in humid or dusty places, or places where the air is sooty or full of cigarette smoke. If the lens, mirror, or other optical components become dirty, the picture will blur or darken, making viewing difficult.
- Do not expose to extreme heat or cold.
  Operating temperature: 5°C ~ 40°C
  Storage temperature: -20°C ~ 55°C

Example of a standard setup

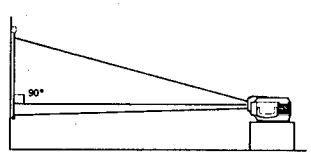
- Position the screen so that it is not in direct sunlight or room light. Light falling directly onto the screen washes out colors, making viewing difficult. Close the curtains and dim the lights when using the screen in a bright or sunny room.
- The best picture will be obtained when the projector is at a 90 degree angle to the screen. Position the projector and screen as shown.

TOP VIEW



The projector should be centered in the middle of the screen.

SIDE VIEW



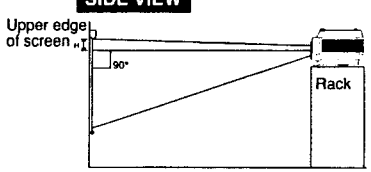
Bottom of the projector lens should be slightly above the bottom of the screen.

If the projector and screen settings are incorrect, the picture will be distorted, making viewing difficult.

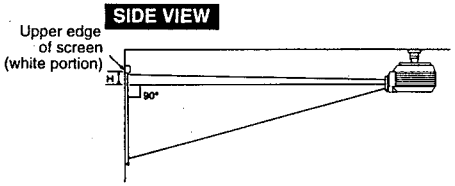
Example of a ceiling mount setup and a high mount setup

- The projector provides the best picture when it is set up perpendicular to the screen. Set up as shown below.
- Before mounting the projector, be sure to contact your local Authorized Sharp Industrial LCD Products Dealer to obtain the manufacturer-recommended ceiling installation unit and installation adaptor or a high mount stand sold separately.

SIDE VIEW



SIDE VIEW



- The following options are available
  Ceiling Mount Setup: AN-P3ZT: Ceiling Mount Bracket
  AN-TK201/AN-TK202: Extension Tube for AN-P3ZT
  High Mount Setup: AN-P3ZH: High Mount Stand
- If the relative positions of the projector and the screen are not properly adjusted, the picture will be distorted, making viewing difficult.

Note: Contact your nearest Authorized Sharp Industrial LCD Products Dealer for inquiries concerning setup.

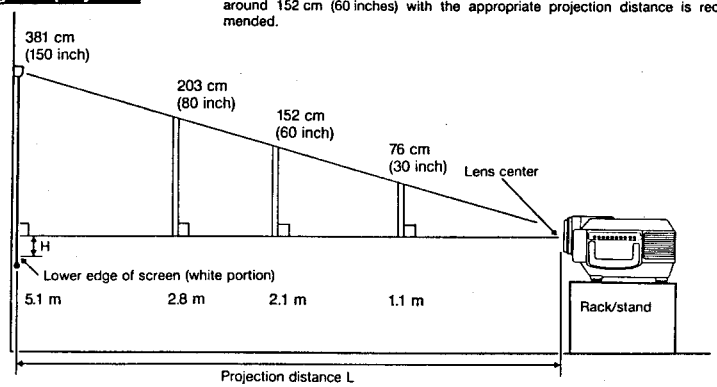
■ This projector has a fixed-focus lens.
Refer to the diagram below to determine the picture size and projection distance.
■ The picture can be focused when the projector is within 1m to 4m of the screen. Please set up the projector within this range.

Relation between projection distance and screen size

Screen size (diagonal)	Projection distance (L)	Distance from lens center to lower edge of screen (H)
381 cm (150 inch)	5.1 m	58 cm
254 cm (100 inch)	3.6 m	38 cm
203 cm (80 inch)	2.8 m	31 cm
152 cm (60 inch)	2.1 m	23 cm
101 cm (40 inch)	1.5 m	16 cm
76 cm (30 inch)	1.1 m	12 cm

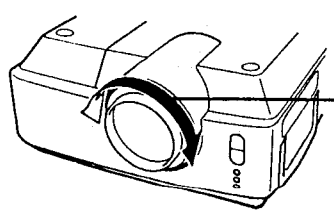
*Focusing parameters will allow projection onto screens of from 76 cm (30 inches) to 381 cm (150 inches) in size. However, for best picture quality, a screen size of around 152 cm (60 inches) with the appropriate projection distance is recommended.

Height of projector



■ After positioning the projector, adjust the focus as shown.

Focusing



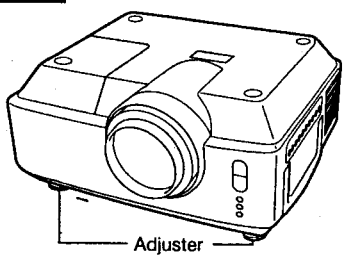
■ Focus the lens so that the screen image is as sharp as possible.
■ Please turn to turning on the power.

Turn the focus ring to focus the image.

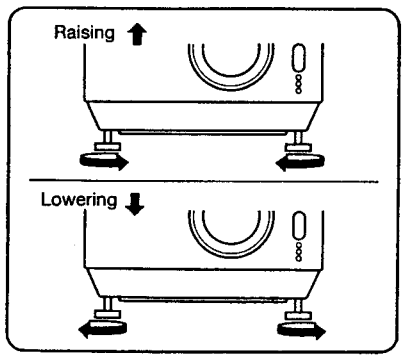
Levelling and height adjustments

■ Use the adjuster at the bottom of the projector to adjust the height of the projector.

Front view



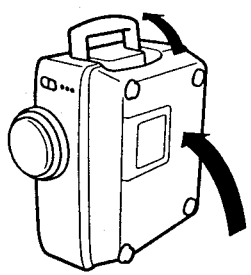
When the height of the projector is adjusted with the adjuster, the image on the screen will look distorted since the projector is not at right angles to the screen.



Adjustments of up to approx. 3° can be made.

When moving the projector

■ Use the carrying handle when moving the projector.



When moving the projector, replace the lens cap to protect the lens.

Lay the projector on its side first as seen in the chart. Then use the carrying handle when moving the projector.

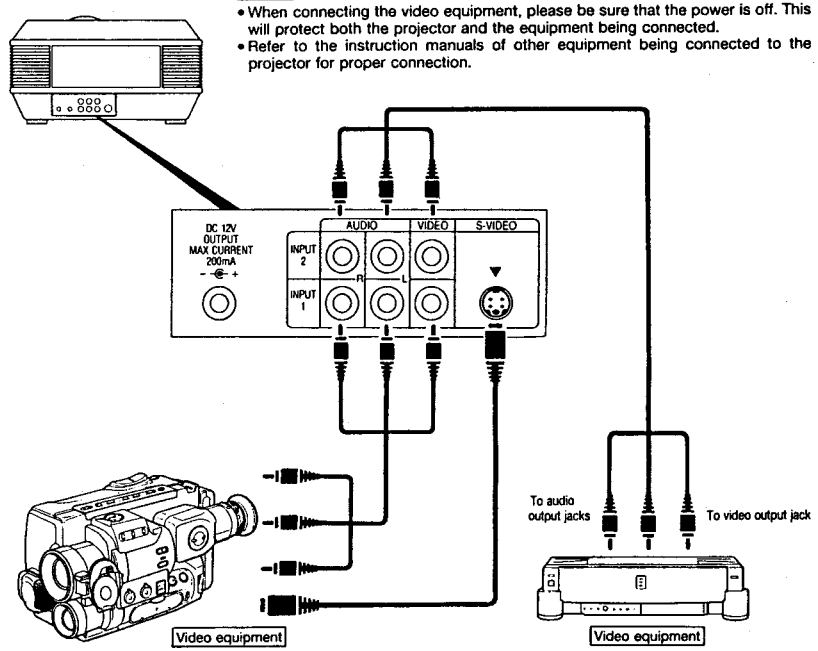
Connecting the Projector

SYSTEM 1

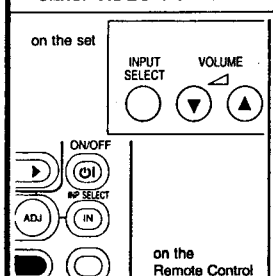
To connect the projector to video equipment for viewing played-back images.

Rear

Notes:
- When connecting the video equipment, please be sure that the power is off. This will protect both the projector and the equipment being connected.
- Refer to the instruction manuals of other equipment being connected to the projector for proper connection.



Use the A/V SELECT button to select either VIDEO 1 or VIDEO 2.



On Screen Display

VIDEO 1 VIDEO 2

S-Video Terminal Priority Input Function

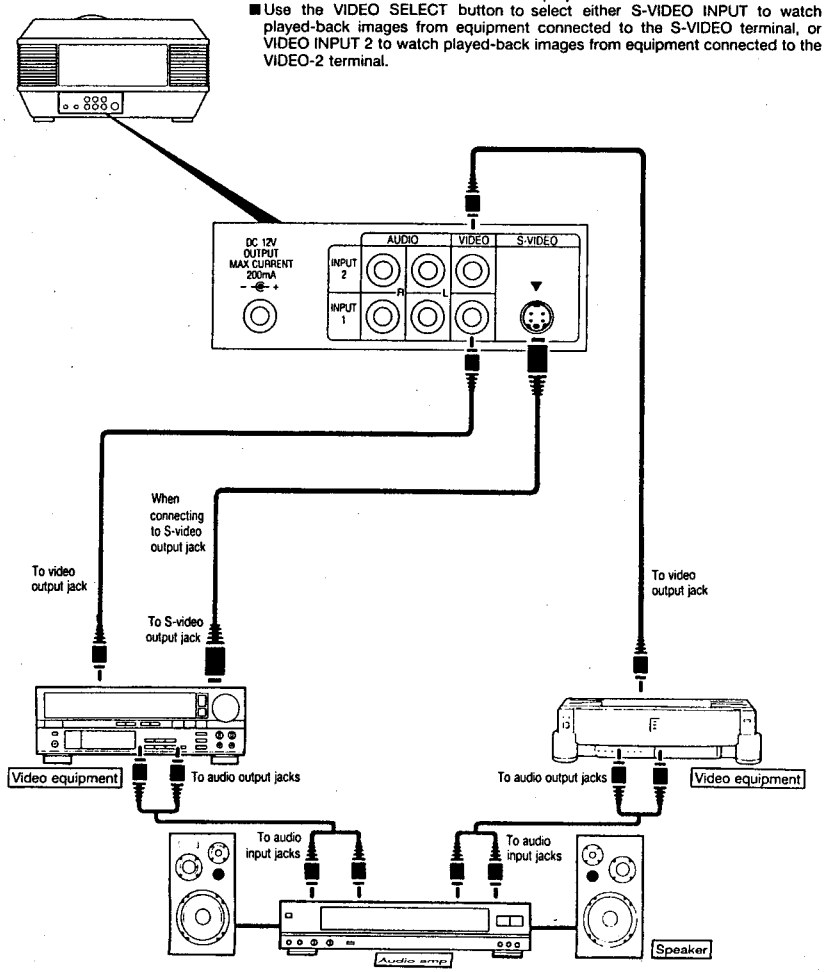
The Video Input 1 and S-video input terminals on this projector are set up to give priority to input from the S-video terminal.
- When video equipment is connected to both terminals, the video image from the S-video input terminal is shown on the screen.
- To view video input from video equipment connected to the Video Input 1 terminal, disconnect the plug from the S-video terminal.

SYSTEM 2

To connect the projector to video and audio equipment for viewing played-back images. (With an audio amplifier connection.)

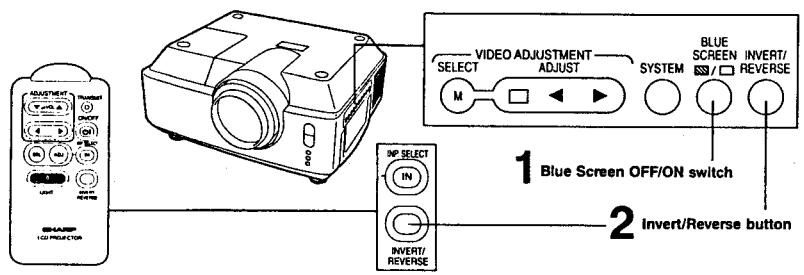
Rear Terminals

- When connecting equipment with an S-video output, such as an S-VHS VCR, and one or more video decks to an AV amplifier, connect up both the S-VIDEO terminal and the VIDEO-2 JACK on the projector.
- Use the VIDEO SELECT button to select either S-VIDEO INPUT to watch played-back images from equipment connected to the S-VIDEO terminal, or VIDEO INPUT 2 to watch played-back images from equipment connected to the VIDEO-2 terminal.



Other Functions

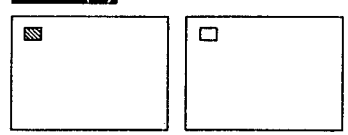
- When the BLUE SCREEN function is turned ON, the screen will turn blue when there is no video signal input to the projector.
- Press the BLUE SCREEN button once more to turn the BLUE SCREEN function OFF.



1 Blue screen function

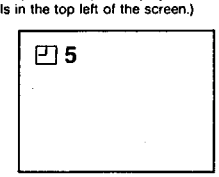
- When the Blue Screen button is set to ▨/□ (ON/OFF), the following display is shown for a few seconds on your screen.

Screen display



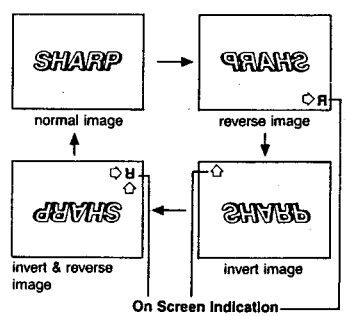
(ON) (OFF)

- When the BLUE SCREEN button is set to the ▨ (ON) position, the screen turns blue when no signal or noise is input. (If the Blue Screen function is engaged for over 15 minutes, the AUTO OFF function engages and power is automatically turned off. Five minutes before the power turns off, the remaining time (in minutes) is displayed at one-minute intervals in the top left of the screen.)

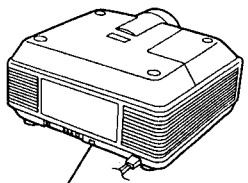


2 Inverting & Reversing the image

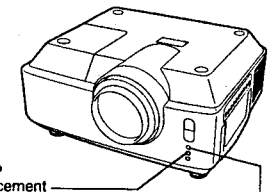
By pressing the Invert/Reverse button you can get a reverse (or mirror) and invert image. Each time the button is pressed the picture image changes in the following manner. When the mode changes, on screen indication is displayed for a few seconds.



Using the Projector

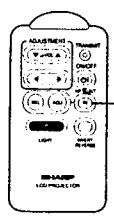


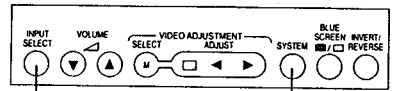
1 Main power switch



2 LAMP replacement indicator

1·2 POWER indicator



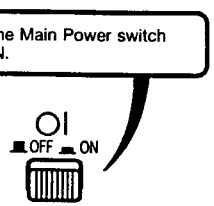


4 Input Select button

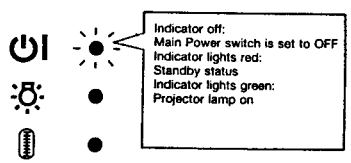
3 SYSTEM mode button

1 Turning on the main power switch

Set the Main Power switch to ON.

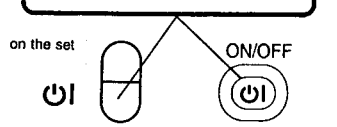


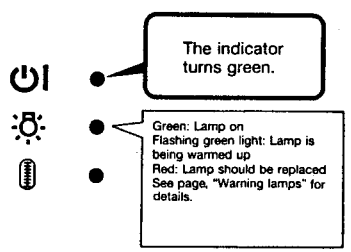
- When you are using the projector for the first time or when the power indicator lamp is off, set the main power switch to ON. (Indicator lights red.)
- The power indicator lamp turns off when the main power switch is set to off.



2 Turning on the lamp power

Press Lamp/Power (ON/OFF) button either on the set or remote control.



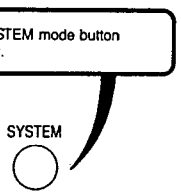

The indicator turns green.
Green: Lamp on
Flashing green light: Lamp is being warmed up
Red: Lamp should be replaced
See page, "Warning lamps" for details.

Notes:

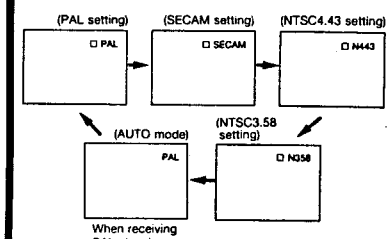
- Even when the power is turned off using the POWER button, the COOLING FAN will continue to operate as long as the projector's internal temperature remains high (about 90 seconds). "Do not disconnect the AC power cord or turn the rear power switch off until the cooling fans have stopped. Failure to do so may reduce the life of the lamp and LCD panel".
- *If the projector is turned on immediately after it has been turned off, it may take a short while before the lamp is turned on. (During this period the Lamp Monitor indicator flashes green.)*

3 System change

Press SYSTEM mode button on the set.



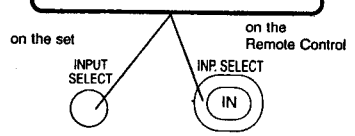
- When the button is pressed, the select COLOR system is displayed in the top right corner of the screen for about a few seconds.



*In Auto mode, "PAL", "SECAM", "NTSC4.43" or "NTSC3.58" is displayed on the screen for about a few seconds when modes are automatically changed.

4 Input selection

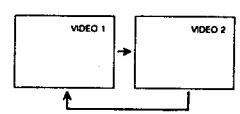
Press Input Select button either on the set or remote control.



- **INPUT SELECT button on the projector operator panel**
  The indication is cycled as shown below when the button is pressed.

VIDEO 1 → VIDEO 2

The screen display changes as shown in these figures.



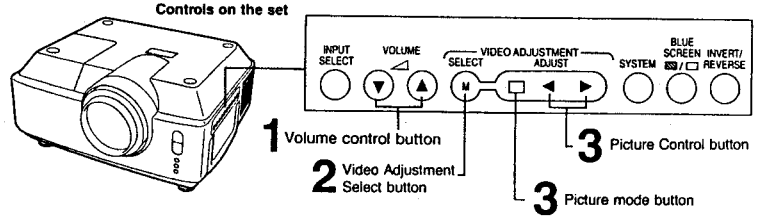
Notes:

- This projector is equipped with three video input systems: S-video, Video-1, and Video-2.
- To choose between these systems, press the INPUT SELECT button to select input from either the VIDEO-1 (S-VIDEO given priority) or the VIDEO-2 terminals.

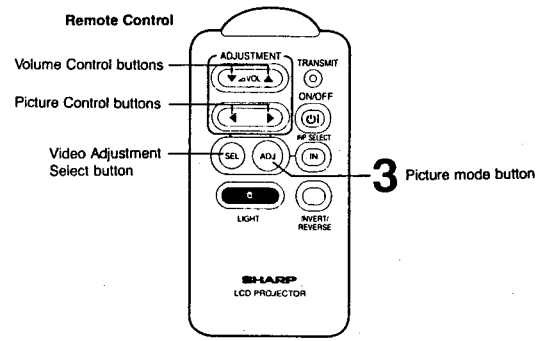
Picture and Volume Control

- This projector's picture is set to standard specifications at the factory. However, you can adjust it to suit your own preferences using the VIDEO ADJUST buttons.
- The positions of the picture settings are committed to memory when set.

Controls on the set

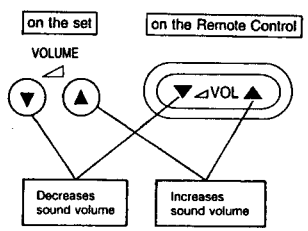


Remote Control

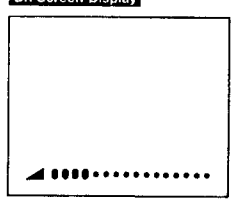


1 Adjusting the Volume

Press the Volume control button on the set or on the remote control.



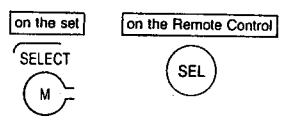
On Screen Display



The number of segments (0-16) displayed increase or decrease as the volume is raised or lowered.

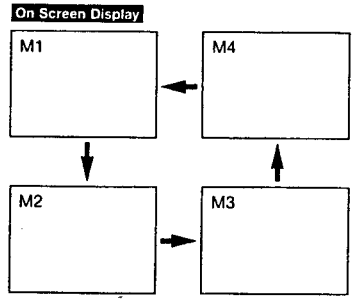
2 Selecting the Picture Position

Press the Video Adjustment Select button either on the set or remote control.



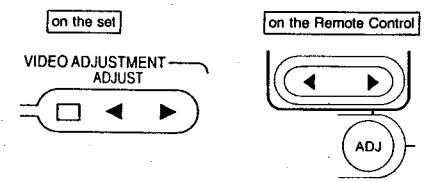
Press the button to select the desired customer pre-selected picture settings. Each of the four memory positions can be adjusted to your own preferred settings. When the button is pressed while the settings are shown on the screen, the display will change as follows.

On Screen Display

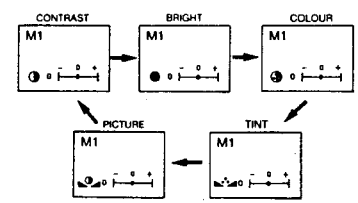


3 Picture adjustments

Use the PICTURE MODE and PICTURE CONTROL buttons to set the picture to suite your preferences.



The picture modes change as shown below when the Picture mode button is pressed.
(M1 shows a memory number.)



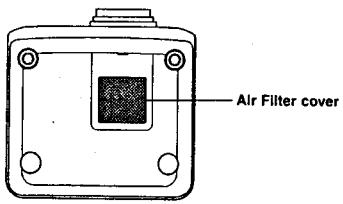
- Select the mode that is to be adjusted and use the PICTURE control buttons to make the adjustments.
  *The modes are displayed on the screen for about a few seconds. The adjustments have to be made while the screen is displayed.

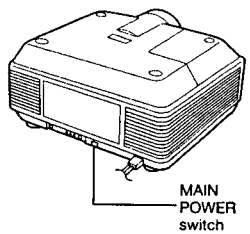
Tint setting can only be adjusted when receiving NTSC signal.

Maintenance

Air filter cleaning

■ The air filter should be cleaned about every 100 hours. Clean the filter more often when the projector is used in a dusty location.
• Have your dealer replace the filter when it is no longer possible to clean it.





Inserting the Batteries (Remote Control)

■ The batteries are supplied and packed with this operation manual. (Two AAA batteries.)

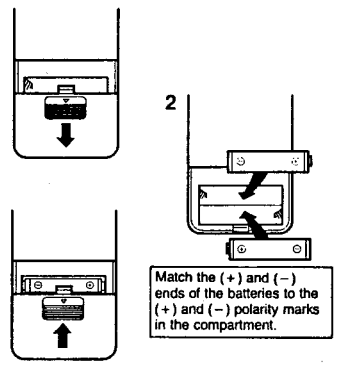
1 Slide the back cover downwards to open the battery compartment.

2 Insert the supplied batteries. (Two AAA batteries.)

3 Close the cover.

Notes:
Incorrect use of batteries may cause them to leak or burst.
• Insert the batteries with their (+) and (−) polarities as indicated.
• Remove the batteries if the remote control will not be operated for an extended period of time. Keep the batteries clean.
• Maintain the batteries in clean condition.
• Do not mix different brands of batteries. The life expectancy of the new batteries will be shortened and the old batteries may leak.
• When the batteries have been used up, remove them immediately to prevent leakage and damage. Leaked battery fluid may irritate the skin. Remove any leakage by wiping with a cloth.

• Due to storage conditions and the shelf life of the supplied batteries, they may run out after a short time. Replace them with new batteries as soon as possible.

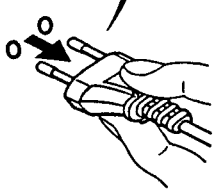


1 Turning off the main power

Turning off the power with the main power switch.

2 Unplugging the power cord

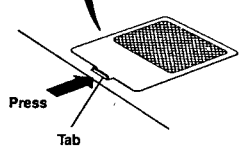
Unplug the power cord.



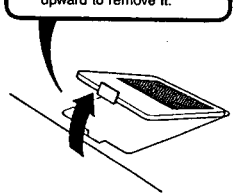
In some areas, the plug may not resemble the one shown in the illustration.

3 Remove the air filter.

1. Pressing the tab as indicated by the arrow.

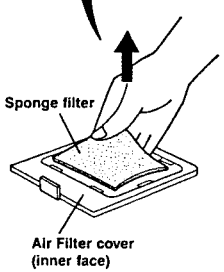


2. Then open the filter cover upward to remove it.



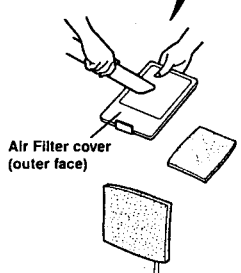
4 Remove the sponge filter.

Remove the sponge filter by grasping.



5 Clean the air filter.

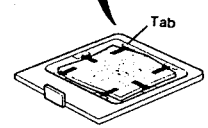
Clean the dust off the air filter and the sponge filter with a vacuum cleaner.



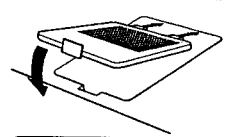
• Clean the filter in warm water with a neutral detergent when the filter is very dusty. Dry the filter in a place not exposed to sun light.

6 Replace the air filter.

Replace the sponge filter in the air filter cover by inserting its edges under the 6 tabs.



1. Insert the protruding tab inside.



2. Close the cover until it clicks.

Note:
• Be sure the AIR FILTER COVER is securely installed. The power cannot be turned on unless it is correctly installed.

Before Calling for Service

Lamp

■The projector's lamp has a limited operating life.

When the lamp is nearly burned out, the picture and colour quality deteriorate. In this event, have the lamp replaced by qualified service personnel.

Replacing the projector lamp requires special technical expertise and should be performed by your local Sharp dealer or Sharp Service Station.

Warning Indicators

■This projector is equipped with warning indicators that go on when an abnormal condition occurs.
■There are two warning indicators in the projector: the temperature warning lamp and lamp replacement indicator.
■If the projector malfunctions, the temperature warning indicator or the lamp replacement indicator will light red and the power is turned off. Perform the following procedures when you have turned off the main power switch.

Warning indicator	Symptom	Potential problems	Countermeasures
Temperature warning indicator	The temperature inside is too high.	•The air vents are blocked.	•Install the projector in an appropriate location.
		•The air filter is clogged.	•Clean the filter
		•The cooling fan is defective. •Any of the internal circuits are defective.	•Turn in the projector for service.
Lamp replacement indicator	The projector lamp does not light.	•The projector lamp has reached the end of its life. •The projector lamp circuit is defective.	•Turn in the projector for service.

NOTE:
If the temperature warning lamp lights up red and the power cuts off, the projector will enter stand-by mode.
After turning off the projector, be sure to wait until the unit's internal temperature has sufficiently lowered before turning it on again (at least 5 min.).

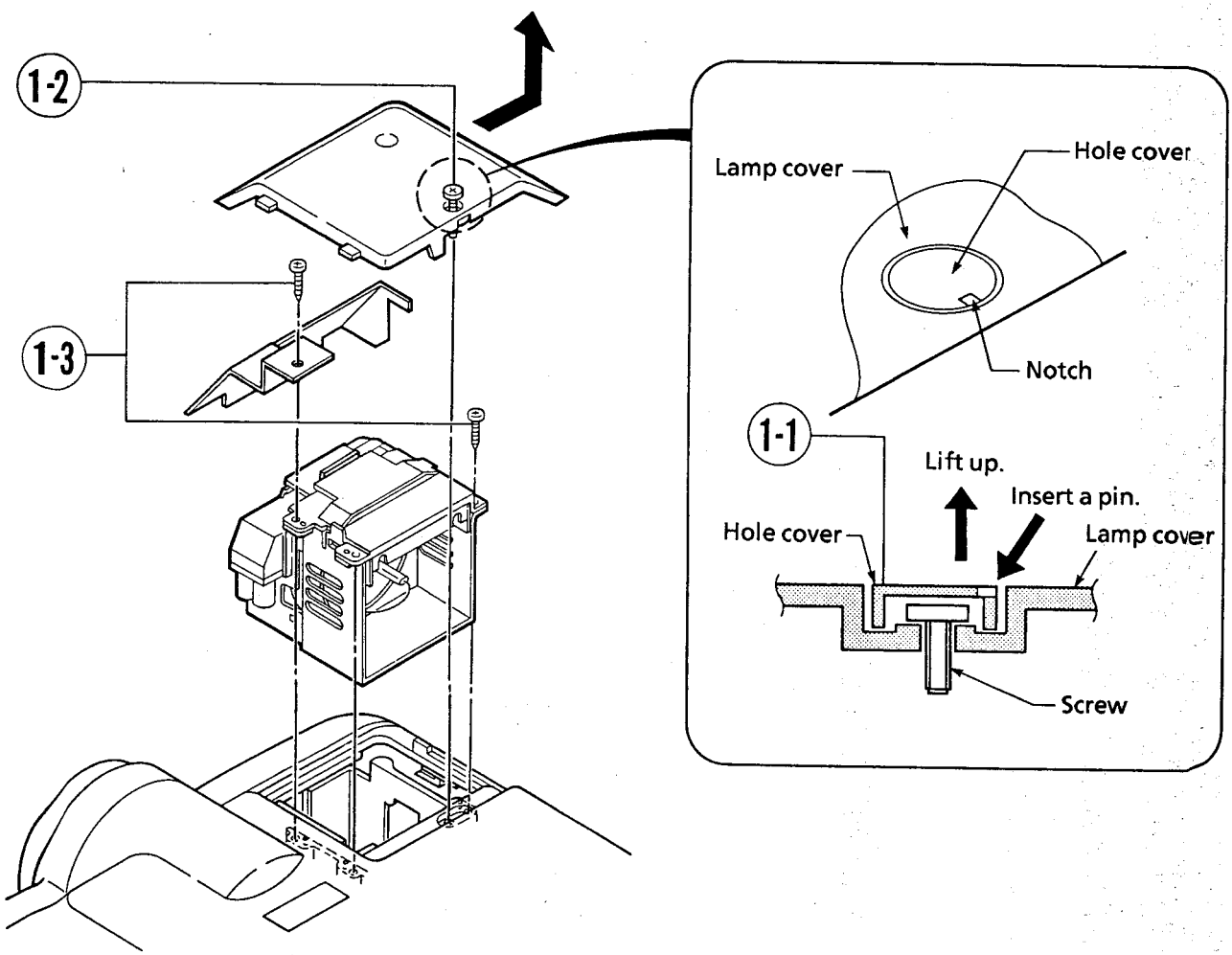
When the power is turned off and then turned on again, as during a brief rest, the Lamp replacement indicator may be triggered, preventing the power from going on. When this happens, turn the Main power switch off and turn it on again.

No picture	•The projector is not plugged into the mains supply. •The MAIN POWER switch is set to off. •The bright (−), contrast (−) controls are set to the minimum position. •Filter may not be inserted correctly or not at all.
Colour is poor or faded	•Check that the COLOUR (+) and (−) controls are properly adjusted.
Picture is blurred	•Adjust the focus •The projection distance is too long or short to allow for proper focus.
An unusual sound is occasionally heard from cabinet	•If picture is normal, the sound is due to cabinet shrinkage caused by temperature changes. This will not effect operation.
Warning indicator lights up.	•Refer to "Warning lamps"
No sound	•Check if the volume control is turned all the way down •Check to make sure that the wires at the back of the LCD projector are properly connected

REMOVING THE MAJOR PARTS

1. Removing the lamp unit

1-1. Insert a pin into the notch of the hole cover. Lift and take out the hole cover.
1-2. Unscrew the screw and detach the lamp cover.
1-3. Unscrew the two screws and take out the lamp unit.



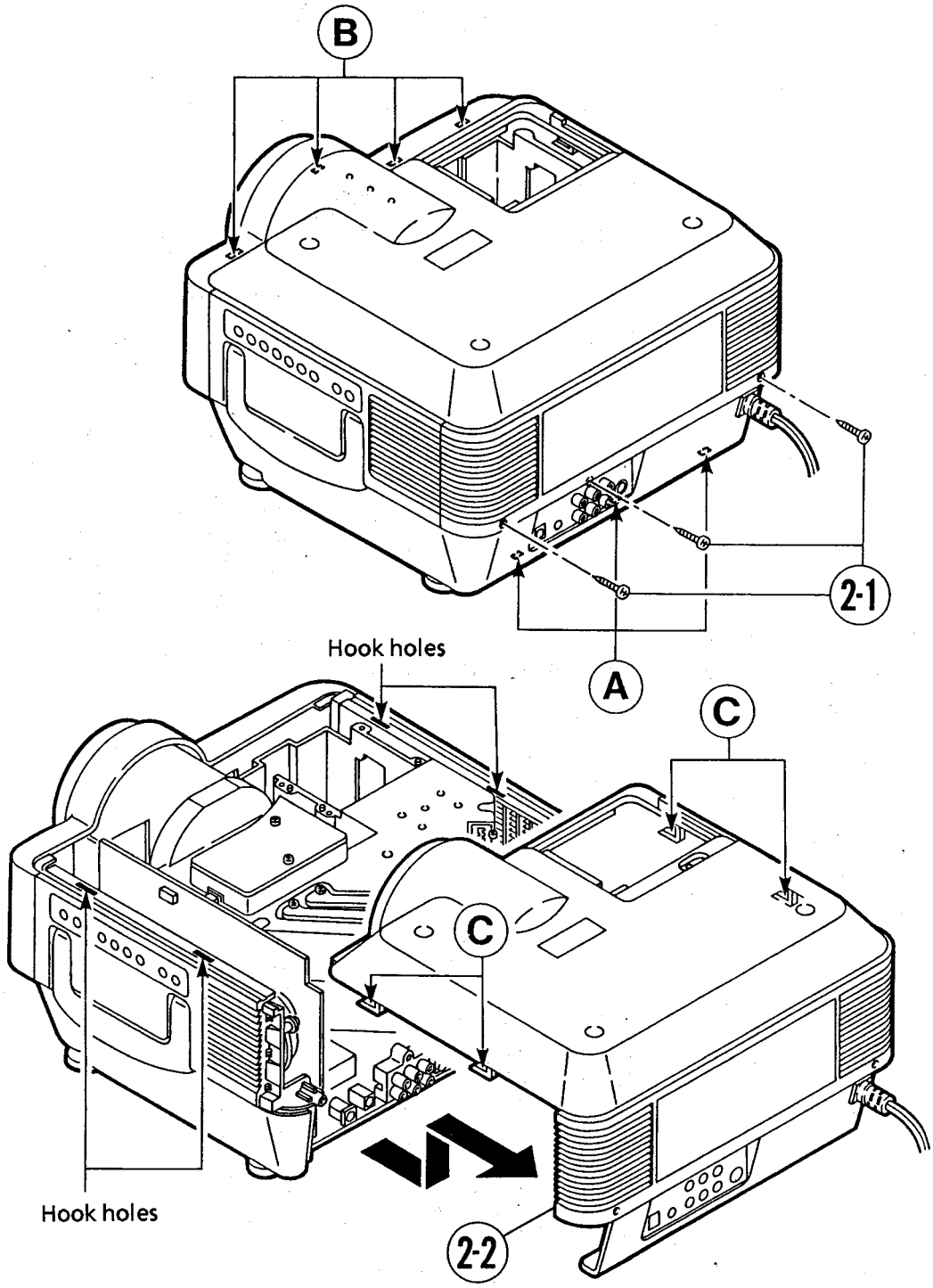
2. Removing the top-rear cover

2-1. Unscrew the three screws off the back of the unit.

Note: Unhook the rear bottom of the cover (three hooks (A)) first and then the top front of the cover (four hooks (B)).

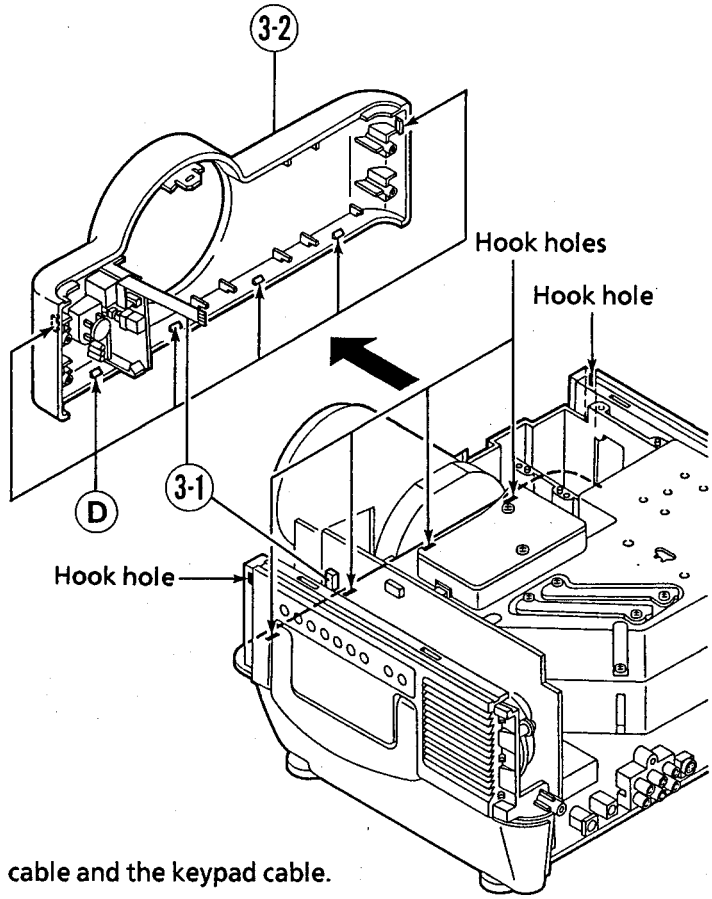
2-2. Detach the top-rear cover.

Note: Slide and undo the four hooks (C) toward the rear body. Slightly lift up the cover and pull it toward the rear body.



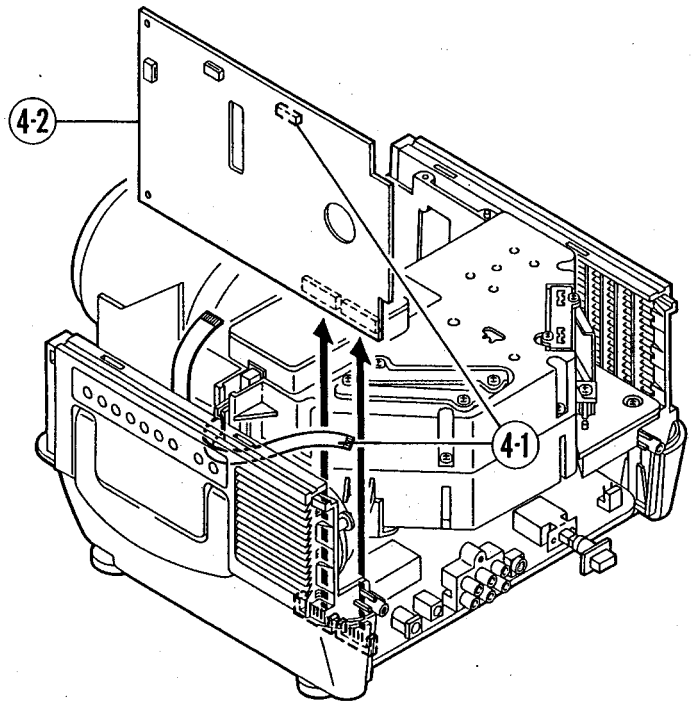
3. Removing the front cover

3-1. Disconnect the LED PWB cable from the connector on the Main PWB.
3-2. Undo the six hooks (D) (one at each side and four at the bottom) and detach the front cover.

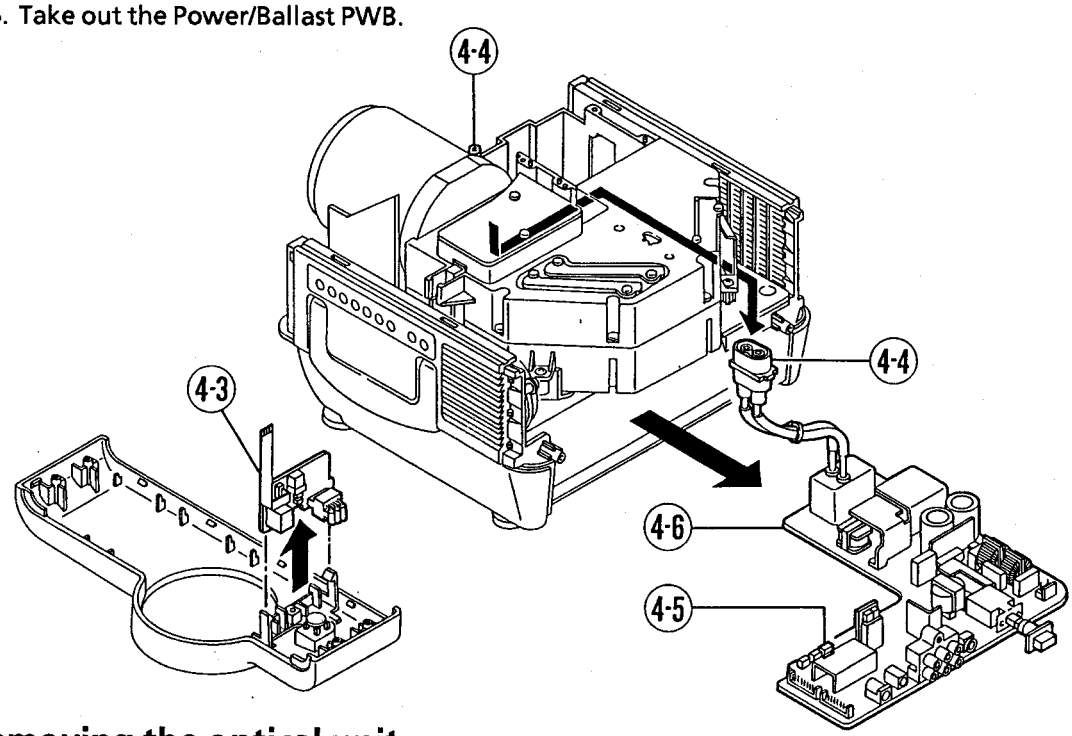


4. Removing the PWBs

4-1. Disconnect the LCD panel cable and the keypad cable.
4-2. Detach the main PWB.

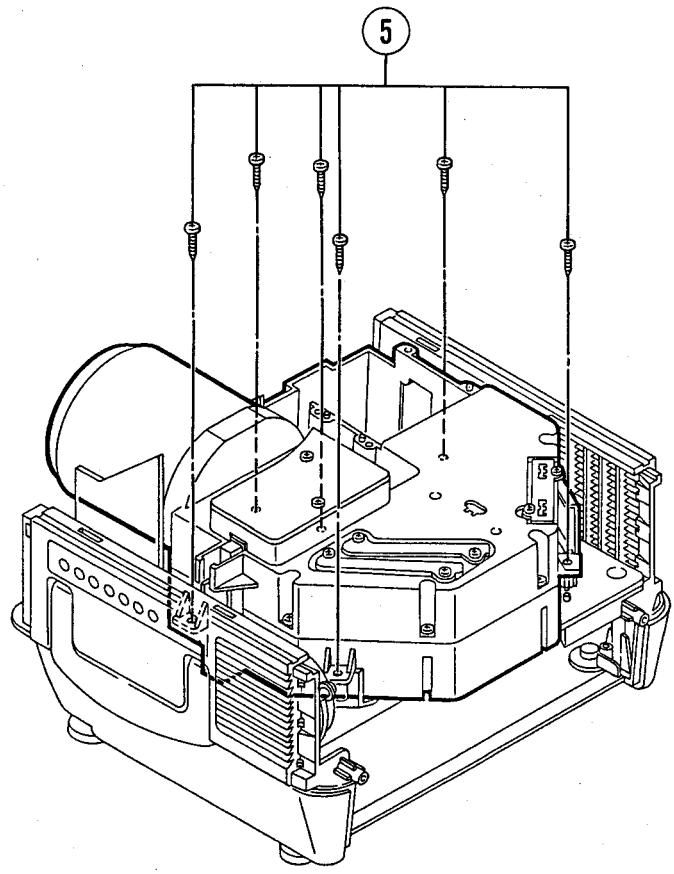


4-3. Undo the top and bottom hooks and remove the LED PWB.
4-4. Unscrew the screw and take out the lamp bracket.
4-5. Disconnect the cables of the speaker switch, suction fan switch and leaf switch.
4-6. Take out the Power/Ballast PWB.



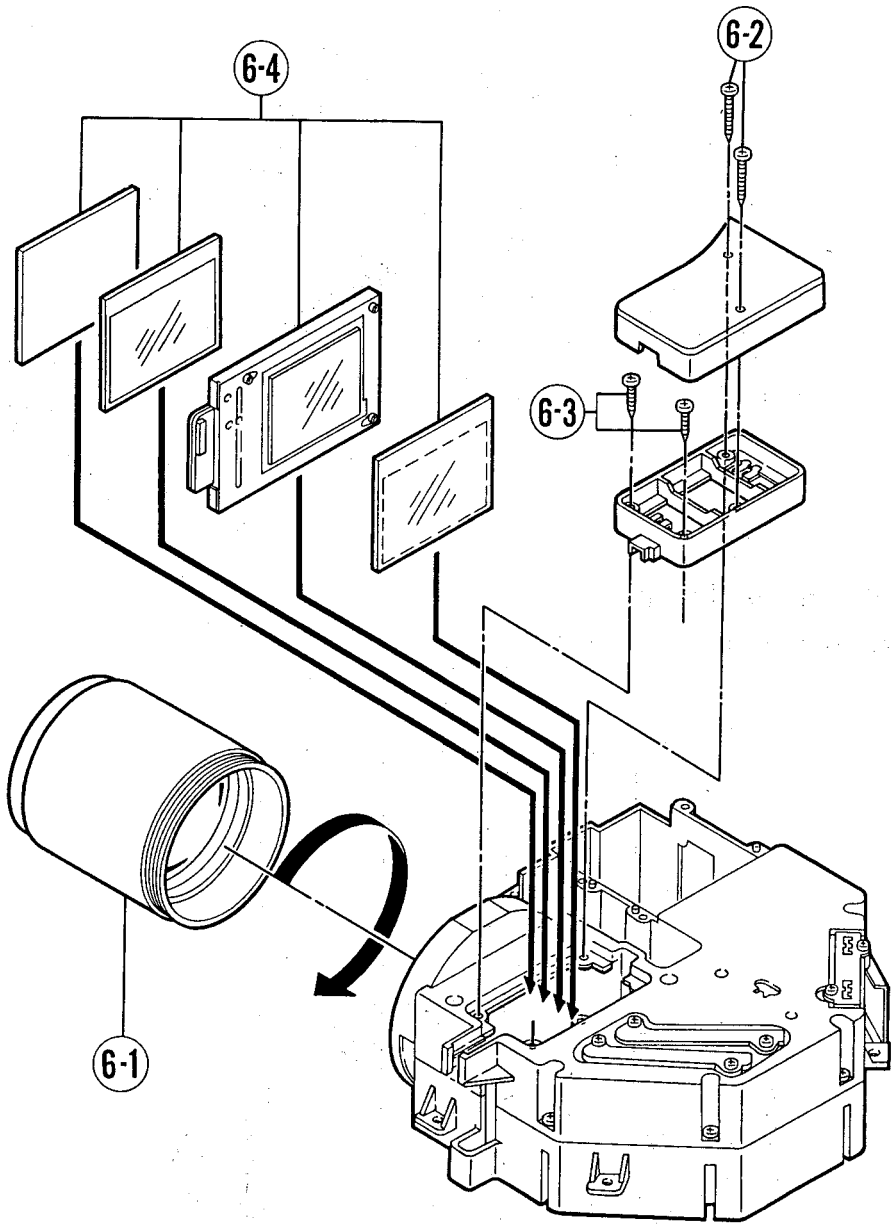
5. Removing the optical unit

Unscrew the six screws and take out the optical unit.



6. Disassembling the optical mechanism

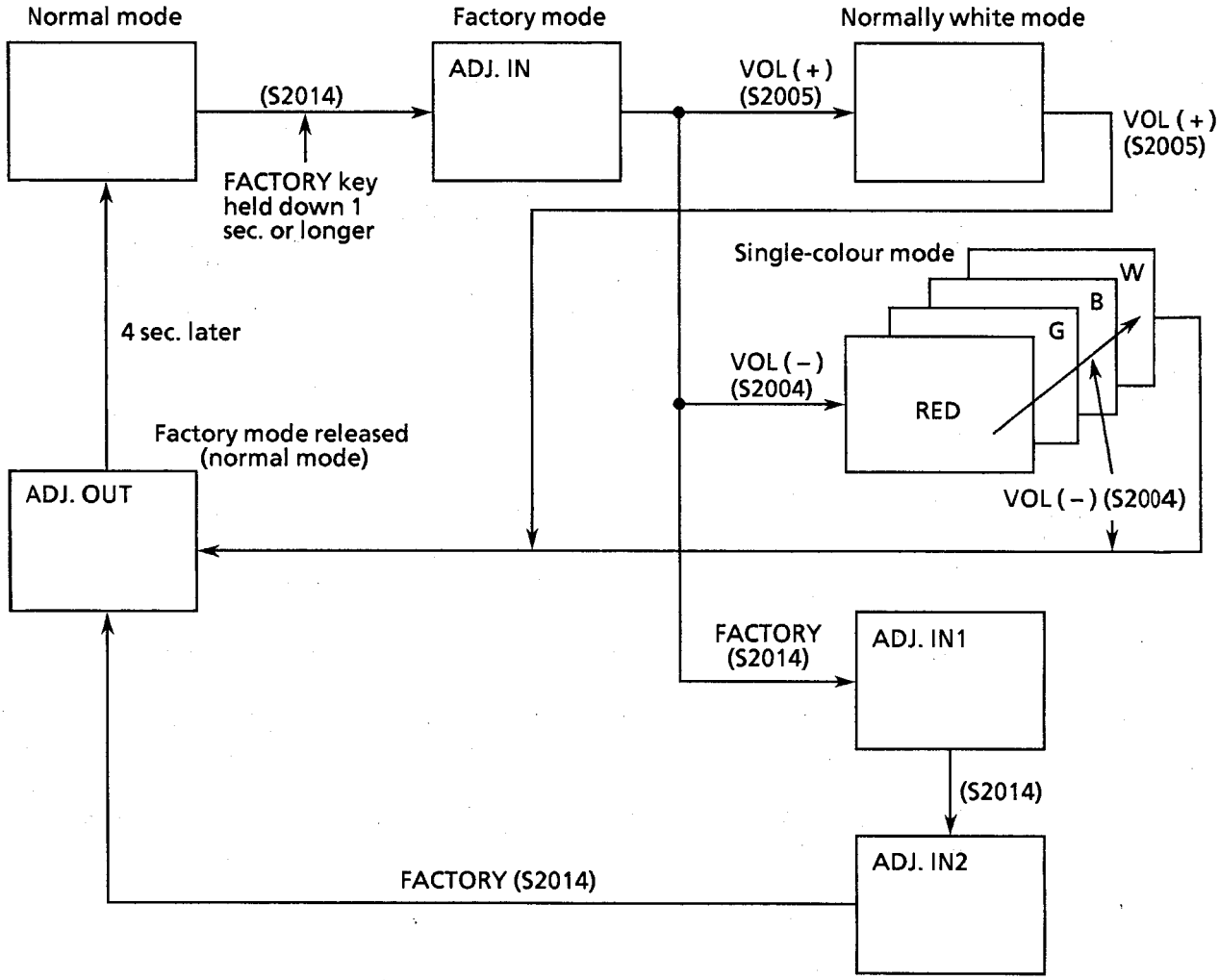
6-1. Turn the projection lens counterclockwise and detach the lens.
6-2. Unscrew the two screws and take out the panel duct.
6-3. Unscrew the two screws and take out the panel cover.
6-4. Pull up and out the optical unit components (Fresnel lens, outgoing light deflection plate, LCD panel and incoming light deflection plate).



FACTORY MODE ADJUSTMENT

FACTORY SWITCH (S2014)

Hold down the FACTORY SWITCH for longer than 1 sec. and the factory mode is called.
In the factory mode, the keys are used to make the following adjustments.



In the normal mode, hold down the FACTORY key for longer than 1 sec. and the factory mode is called and the "ADJ. IN" appears on the screen.
With the "ADJ. IN" being displayed, the VOL (+), VOL (–) and FACTORY keys can be used to bring the modes that are shown above and discussed below.

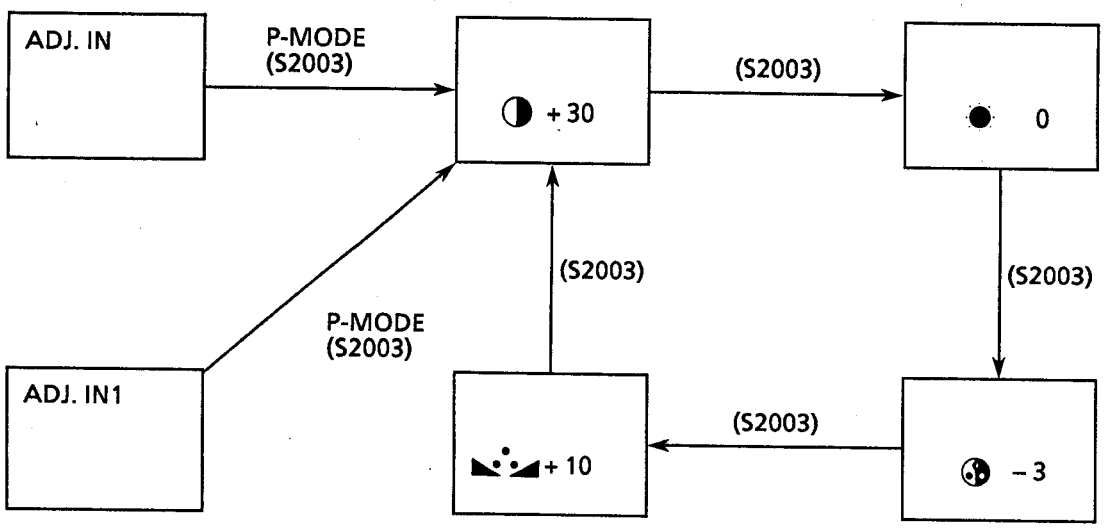
Normally white mode

In this mode, the screen turns normally white. Press the VOL (+) (S2005) key again, and the "ADJ. OUT" first appears on the screen and then the normal mode is called back. In the normally white mode, the VOL (+) (S2005) key alone is effective.

Single-colour mode

In this mode, a single colour appears on the screen. Press the VOL (−) (S2005) key and the colour changes in the order of RED → GREEN → BLUE → WHITE → ADJ. OUT. In the single-colour mode, the VOL (−) (S2005) key alone is effective.

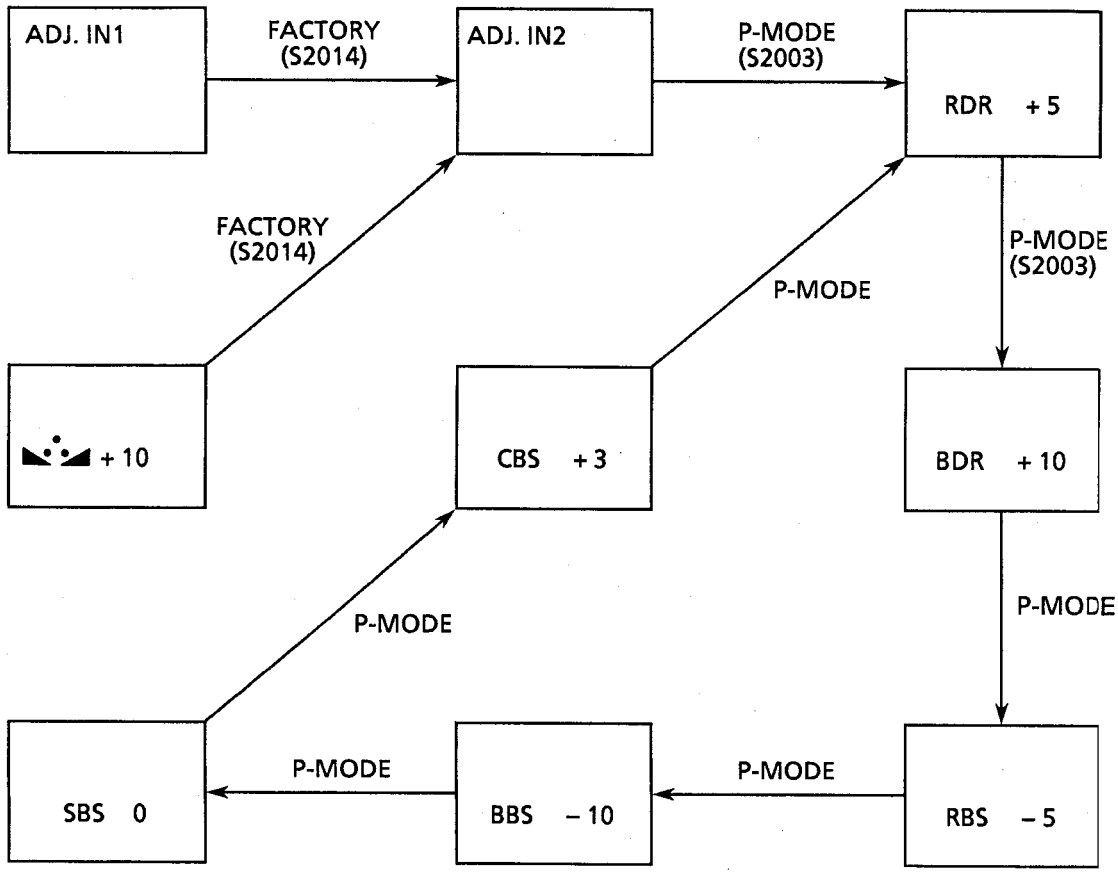
ADJ. IN1 mode



In the ADJ. IN or ADJ. IN1 mode, press the P-MODE (S2003) key and the video adjustment items are called on the screen. Each time the S2003 key is pressed, the adjustment items change in the order illustrated above.

With any of the adjustment items on the screen, press the FACTORY (S2014) key and the ADJ. IN2 adjustment mode is called on the screen.

ADJ. IN2 mode

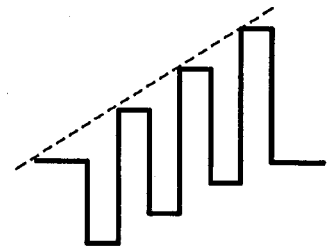
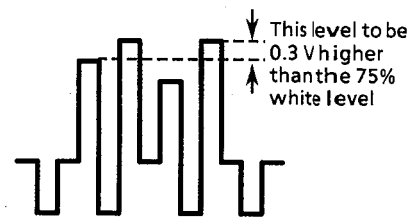
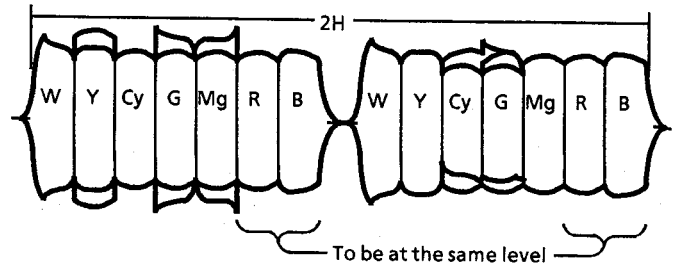


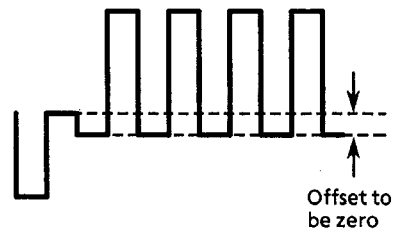
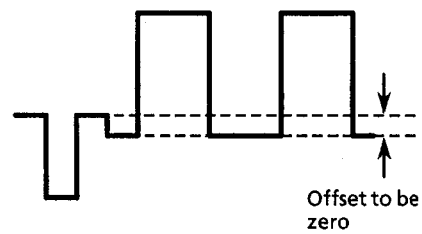
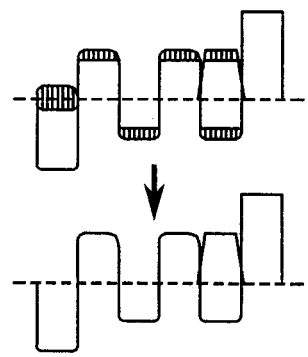
In the ADJ. IN1 mode or with any of the ADJ. IN1 adjustment items on the screen, press the FACTORY (S2014) key and the ADJ. IN2 mode is called on the screen.
In the ADJ. IN2 mode, press the P-MODE (S2003) key and the drive and bias adjustment items change in the order illustrated above.
With any of the adjustment items on the screen, press the FACTORY (S2014) key and the "ADJ. OUT" first appears on the screen and then the normal mode is called back.
With any of the adjustment items on the screen in the ADJ. IN1 or ADJ. IN2 mode, press the SYSTEM (S2010) key and all the adjustment items are displayed on the screen for collective check-up of settings.

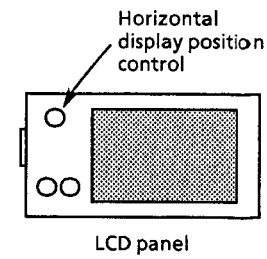
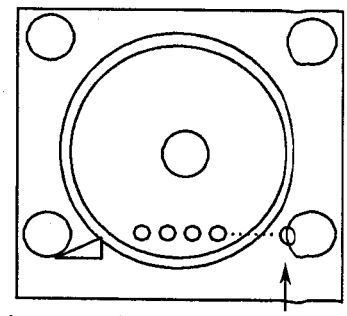
ELECTRICAL ADJUSTMENT

Note: Unless otherwise specified, all the adjustments should be made in the standard conditions.

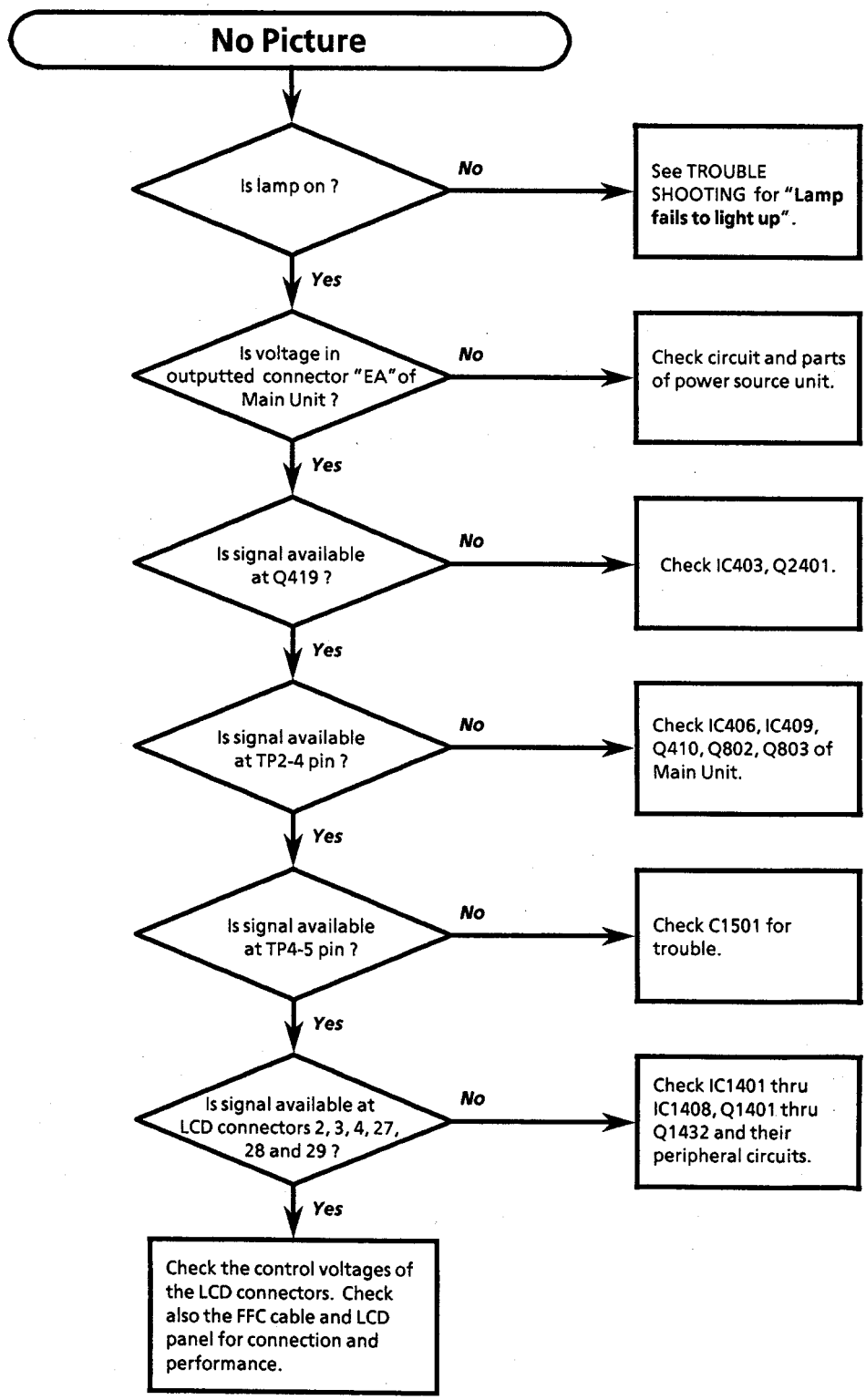
No.	Adjustment position	Adjustment condition	Adjustment method
1	**Microprocessor initialization**	• Be sure to initialize the microprocessor. All the adjustment settings are now initialized to get the unit ready for adjustment.	• Hold down the S2014 key for 1 sec. or longer. → "ADJ. IN" appears on the screen. • Hold down the S2006 key for 1 sec. or longer. → "SET 2" appears on the screen.
2	**AGC (Automatic Gain Control): R1546**	• Receive the NTSC monoscope pattern signal. • Connect the voltmeter between TP2-7 pin and GND.	• Adjust R1546 so that the voltmeter should read 4.5 ± 0.2 V.
3	**Sub-brightness: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the brightness in the ADJ. IN1 mode. • Connect the oscilloscope between TP4-5 pin and GND.	• Using the DAC +/– key, adjust the signal's pedestal level to DC – 2.2 ± 0.05 V.
4	**Sub-contrast: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the contrast in the ADJ. IN1 mode. • Connect the oscilloscope between TP4-5 pin and GND.	• Using the DAC +/– key, adjust the signal's white peak level to DC 0.8 ± 0.05 V.
5	**R-drive: ADJ. IN2 RDR**	• Receive the NTSC colour bar signal. • Select the RDR in the ADJ. IN2 mode. • Connect the oscilloscope between TP4-4 pin and GND.	• Using the DAC +/– key, adjust the 100% white level to DC 0.8 ± 0.05 V.
6	**B-drive: ADJ. IN2 BDR**	• Receive the NTSC colour bar signal. • Select the BDR in the ADJ. IN2 mode. • Connect the oscilloscope between TP4-6 pin and GND.	• Using the DAC +/– key, adjust the 100% white level to DC 0.8 ± 0.05 V. • Adjust R1546 so that the 100% white level be DC 0.5 ± 0.05 V.
7	**Sub-bias: ADJ. IN2 SBS**	• Receive the NTSC colour bar Signal. • Select the SBS in the ADJ. IN2 mode. • Connect the oscilloscope between TP3-3 pin (VG2) and GND.	• Adjust the white-to-white level of the inverted and non-inverted waves to 1.6 ± 0.05 Vp-p.

Step	Adjustment position	Adjustment condition	Adjustment method
8	**R sub-bias: ADJ. IN2 RBS**	• Receive the NTSC colour bar signal. • Select the RBS In the ADJ. IN2 mode. • Connect the oscilloscope between TP3-4 pin (VG2) and GND.	• Using the DAC +/– key, adjust the white-to-white level of the inverted and non-inverted waves to 1.1 ± 0.1 Vp-p.
9	**B sub-bias: ADJ. IN2 BBS**	• Receive the NTSC colour bar signal (Ja-8ch). • Select the BBS in the ADJ. IN2 mode. • Connect the oscilloscope between TP3-2 pin (VB2) and GND.	• Using the DAC +/– key, adjust the white-to-white level of the inverted and non-inverted waves to 1.9 ± 0.1 Vp-p.
10	**NTSC tint: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the tint in the ADJ. IN1 mode. • Connect he oscilloscope between TP2-2 pin and GND.	• Using the DAC +/– key, adjust the waveform as shown below. 
11	**Colour saturation: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the colour in the ADJ. IN1 mode. • Connect the oscilloscope between TP4-6 pin and GND.	• Using the DAC +/– key, adjust the waveform as shown below. 
12	**Chroma trap: T402**	• Receive the PAL colour bar signal. • Connect the oscilloscope between TP2-4 pin and GND.	• Adjust T402 so that the chroma carrier be minimum.
13	**Chroma trap: T401**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP2-4 pin and GND.	• Adjust T401 so that the chroma carrier be minimum.
14	**SECAM bell filter: T805**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP2-6 pin and GND.	• Adjust T805 so that the RB (1) and RB (2) in the 2H period should have the same amplitude. See the figure below. 

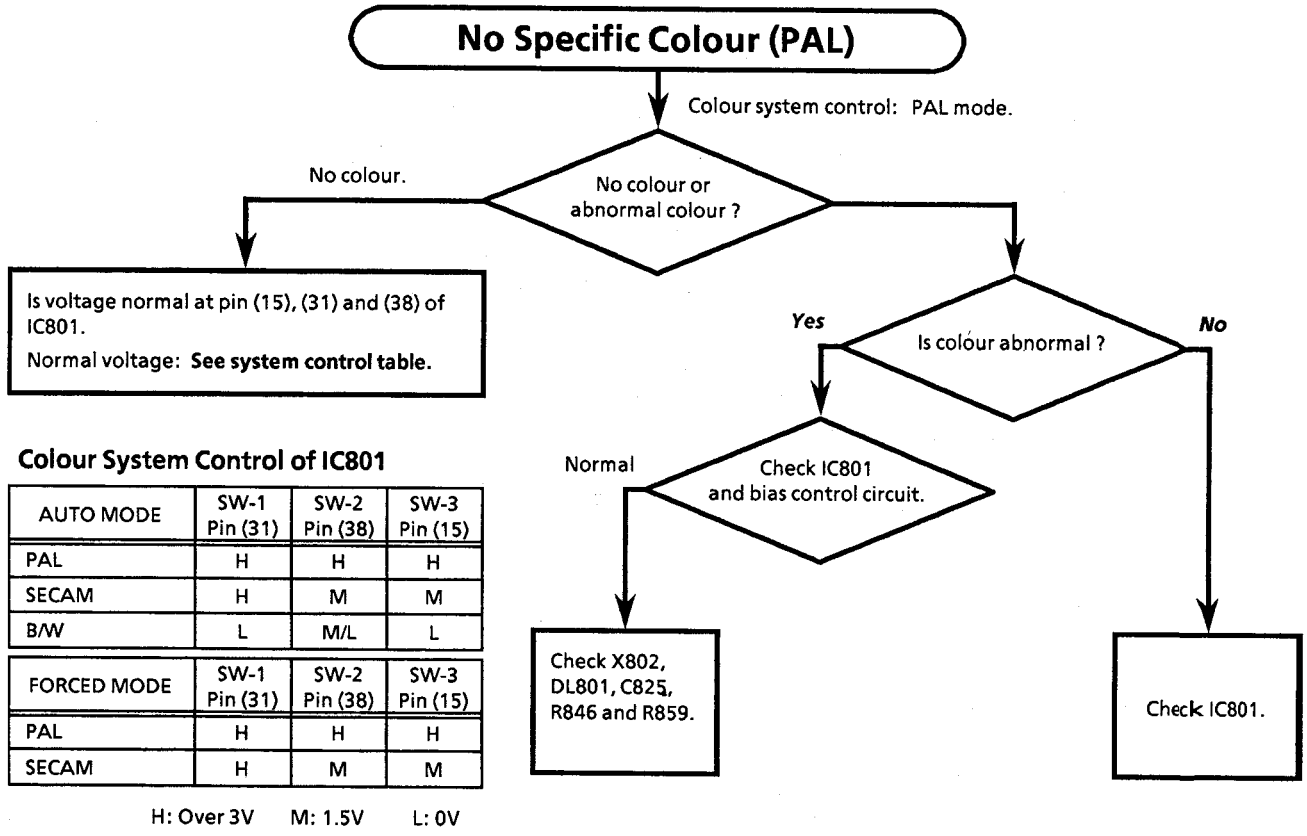
Step	Adjustment position	Adjustment condition	Adjustment method
15	**SECAM ID: T805**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP2-5 pin and GND.	• Adjust T804 so that the DC level be maximum.
16	**SECAM B-Y: T801**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP2-2 pin and GND.	• Adjust T801 so that the offset be zero. See the figure below. 
17	**SECAM R-Y: T802**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP2-1 pin and GND.	• Adjust T802 so that the offset be zero. See the figure below. 
18	**PAL 1H delay: Phase; T803, Gain; R859**	• Receive the PAL colour bar signal. • Connect the oscilloscope between TP2-2 pin and GND.	• Adjust R859 and T805 so that the hatched portions should change as shown below.  After adjustment
19	**Scan conversion oscillation: L4101**	• Make a short-circuit between TP4101 and GND. • Connect the frequency counter to TP4102.	• Adjust L4101 so that the frequency counter should read 15.625 ± 0.01 kHz.

Step	Adjustment position	Adjustment condition	Adjustment method
20	**PAL Y level: R4162**	• Receive the PAL colour bar signal. • Connect the oscilloscope between TP2-4 pin and GND.	• Adjust R4162 so that the pedestal-to-white level be 1.0 ± 0.05/ – 0 Vp-p.
21	**Counter-bias (fine adjustment): R1479**	• Receive the NTSC monoscope pattern signal.	• Adjust R1479 so that the contrast be sharpest.
22	**White balance (fine adjustment): R1667 (B), R1673 (R)**	• Receive the NTSC monoscope pattern signal.	• Watch the screen to check the white balance. If out of balance, finely adjust R1667 and R1673. For final adjustment, receive the Ja-4ch signal and check the flesh colour.
23	**NTSC horizontal display position**	• Receive the NTSC monoscope pattern signal.	• Turn the horizontal display position control on the LCD panel so that the image be centered. 
24	**PAL horizontal display position**	• Receive the PAL monoscope pattern signal.	• Adjust R1605 so that the image be centered.
25	**Sign position: T2001**	• Receive the NTSC monoscope pattern signal. • Holding down the S-UP switch, turn the sign position adjustment coil (T2001).	

TROUBLE SHOOTING TABLE


No Picture
Is lamp on ?
No
See TROUBLE SHOOTING for "Lamp fails to light up".
Yes
Is voltage in outputted connector "EA" of Main Unit ?
No
Check circuit and parts of power source unit.
Yes
Is signal available at Q419 ?
No
Check IC403, Q2401.
Yes
Is signal available at TP2-4 pin ?
No
Check IC406, IC409, Q410, Q802, Q803 of Main Unit.
Yes
Is signal available at TP4-5 pin ?
No
Check C1501 for trouble.
Yes
Is signal available at LCD connectors 2, 3, 4, 27, 28 and 29 ?
No
Check IC1401 thru IC1408, Q1401 thru Q1432 and their peripheral circuits.
Yes
Check the control voltages of the LCD connectors. Check also the FFC cable and LCD panel for connection and performance.

TROUBLE SHOOTING TABLE (Continued)


No Specific Colour (PAL)
Colour system control: PAL mode.
No colour or abnormal colour ?
No colour.
Is voltage normal at pin (15), (31) and (38) of IC801.
Normal voltage: See system control table.
Yes
Is colour abnormal ?
No
Normal
Check IC801 and bias control circuit.
Check X802, DL801, C825, R846 and R859.
Check IC801.

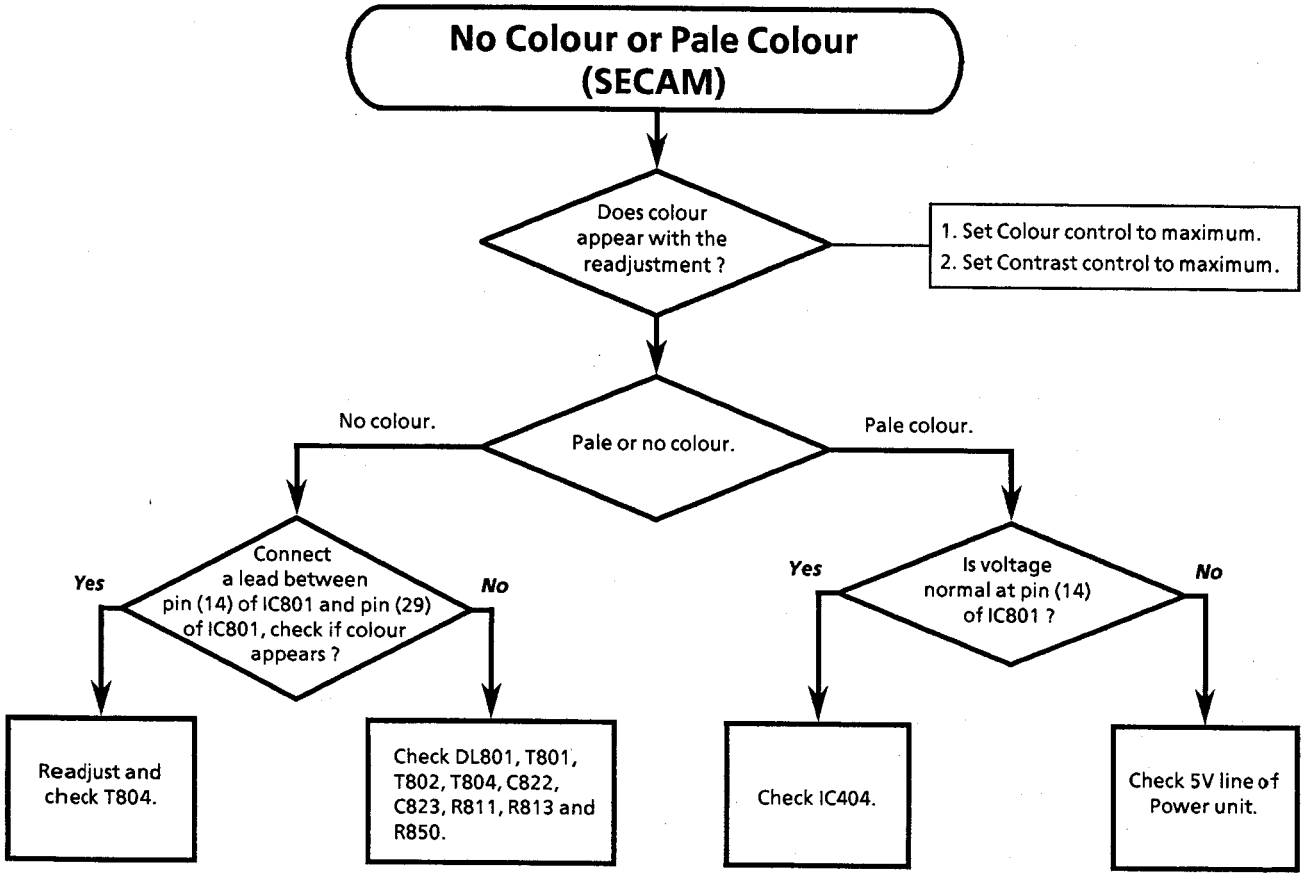
Colour System Control of IC801

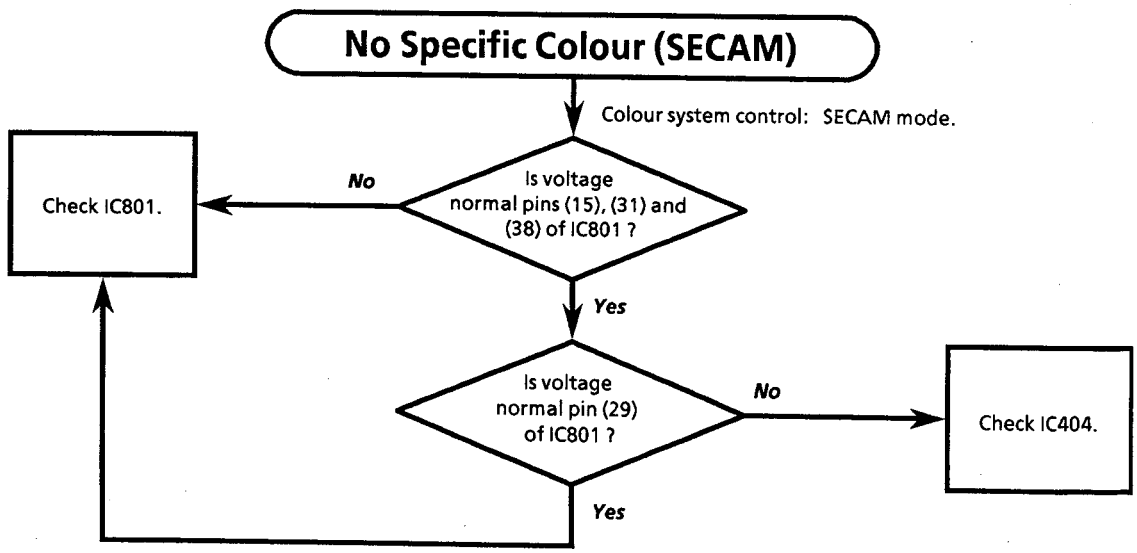
AUTO MODE	SW-1 Pin (31)	SW-2 Pin (38)	SW-3 Pin (15)
PAL	H	H	H
SECAM	H	M	M
B/W	L	M/L	L

FORCED MODE	SW-1 Pin (31)	SW-2 Pin (38)	SW-3 Pin (15)
PAL	H	H	H
SECAM	H	M	M

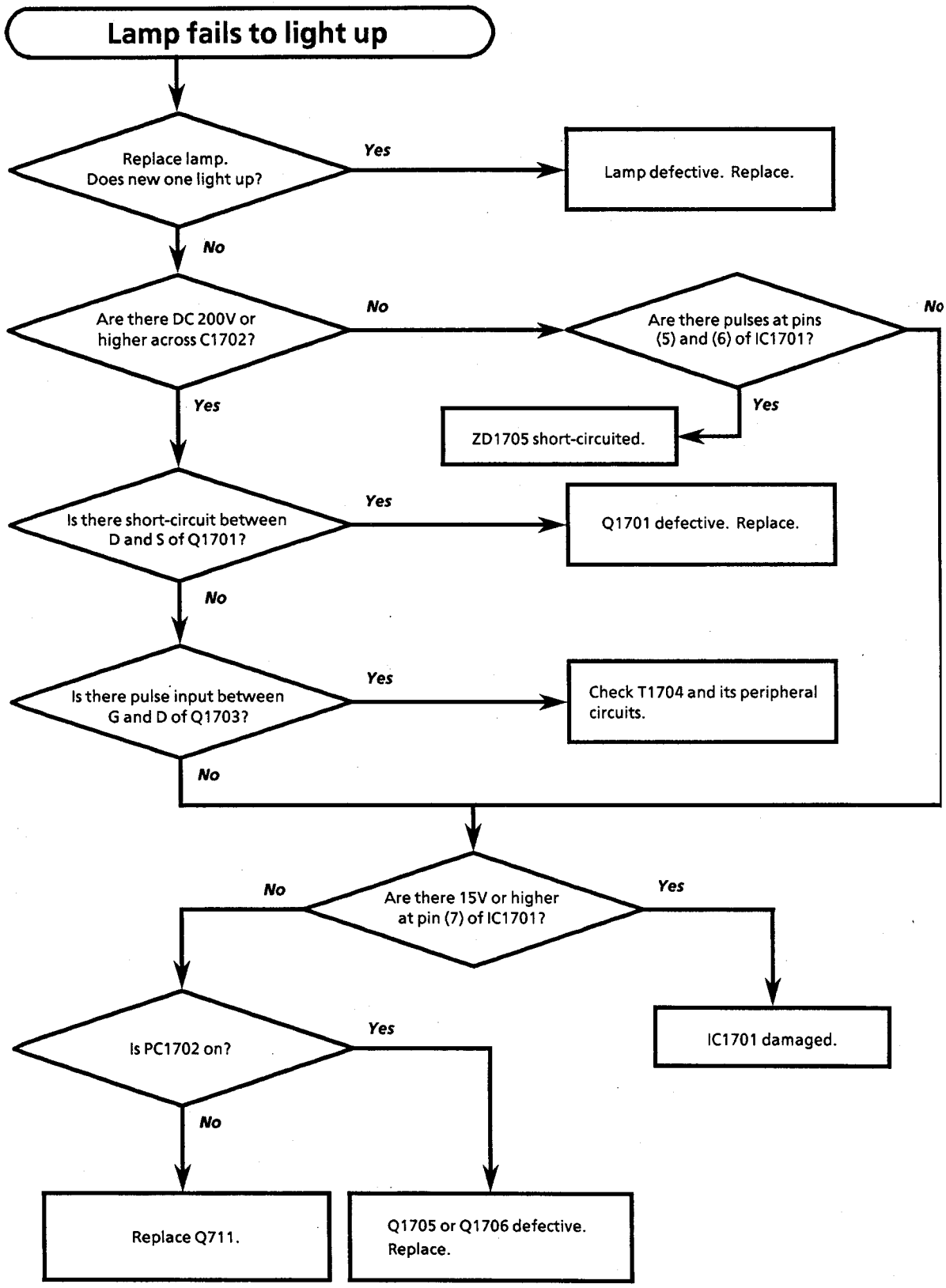
H: Over 3V M: 1.5V L: 0V

TROUBLE SHOOTING TABLE (Continued)

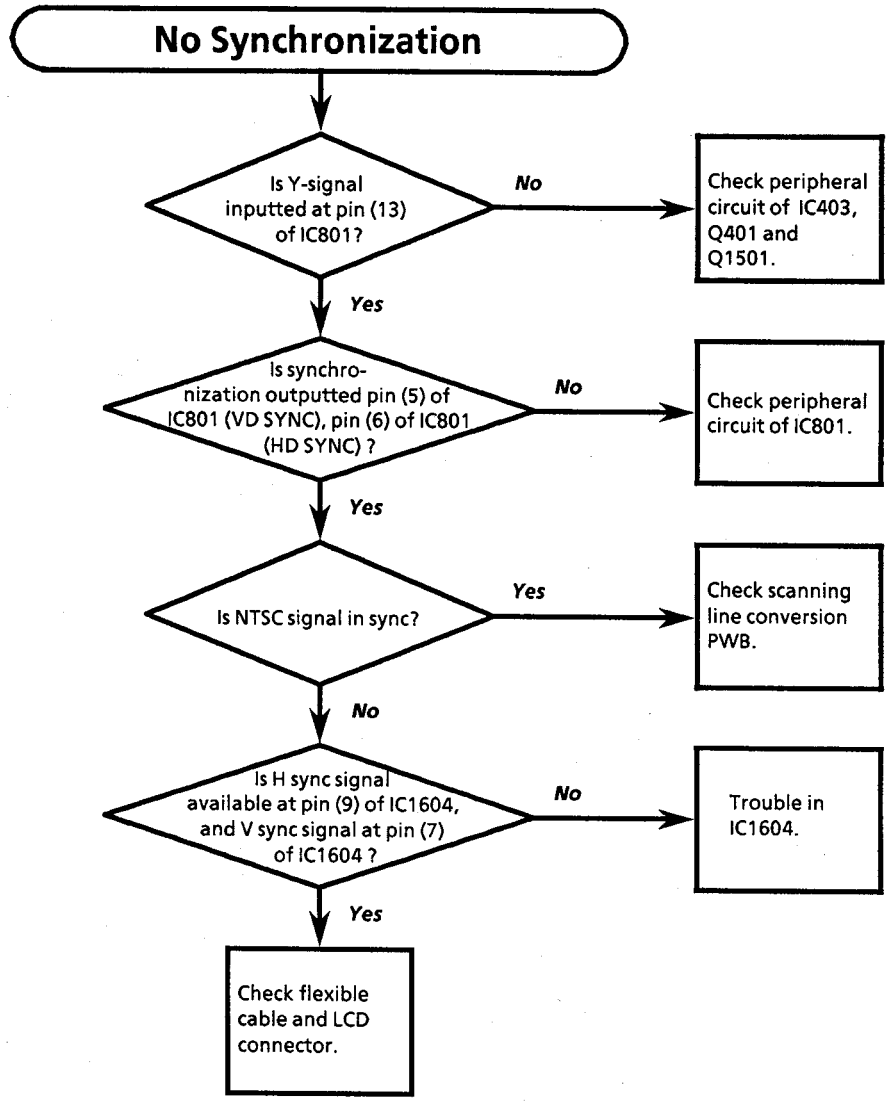

No Colour or Pale Colour (SECAM)
Does colour appear with the readjustment ?
1. Set Colour control to maximum.
2. Set Contrast control to maximum.
Pale or no colour.
No colour.
Pale colour.
Connect a lead between pin (14) of IC801 and pin (29) of IC801, check if colour appears ?
Yes
No
Readjust and check T804.
Check DL801, T801, T802, T804, C822, C823, R811, R813 and R850.
Is voltage normal at pin (14) of IC801 ?
Yes
No
Check IC404.
Check 5V line of Power unit.



TROUBLE SHOOTING TABLE (Continued)



TROUBLE SHOOTING TABLE (Continued)


No Synchronization
Is Y-signal inputted at pin (13) of IC801?
No
Check peripheral circuit of IC403, Q401 and Q1501.
Yes
Is synchro-nization outputted pin (5) of IC801 (VD SYNC), pin (6) of IC801 (HD SYNC) ?
No
Check peripheral circuit of IC801.
Yes
Is NTSC signal in sync?
Yes
Check scanning line conversion PWB.
No
Is H sync signal available at pin (9) of IC1604, and V sync signal at pin (7) of IC1604 ?
No
Trouble in IC1604.
Yes
Check flexible cable and LCD connector.

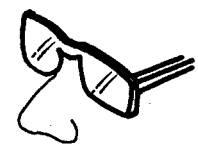
HINWEISE FÜR DEN WARTUNGSTECHNIKER

VORSICHTSMASSNAHMEN GEGEN UV-STRAHLUNG

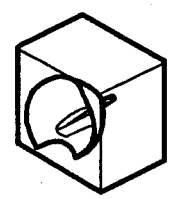
Die Lichtquelle (Halogenlampe)im LCD-Projektor erzeugt geringe Anteile von UV-Strahlung.

DIREKTEN AUGEN-UND HAUTKONTAKT VERMEIDEN.

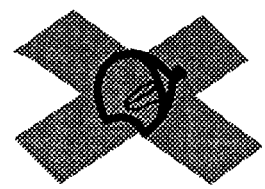
Folgende Sicherheitshinweise sind zu befolgen:



1. Bei der Wartung des Geräts muß bei eingeschalteter Lampe (ON)eine Sonnenschutzbrille getragen werden.



2. Die Lampe darf nicht außerhalb des Lampengehäuses verwendet werden.



3. Bei entfernten oberen Deckel nicht länger als 2 Stunden betreiben.

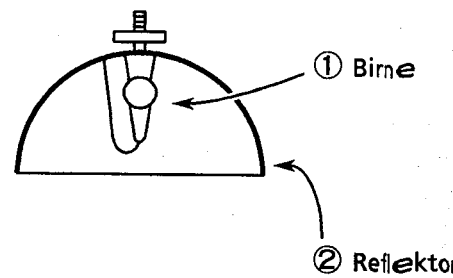
Vorsichtsmaßnahmen bezüglich UV-Strahlung und Mitteldrucklampen

1. Vor dem Auswechseln der Lampe unbedingt den Netzstecker ziehen.
2. Das Gerät vor dem Durchführen von Wartungsarbeiten eine Stunde lang abkühlen lassen.
3. Nur gegen eine Lampe des gleichen Typs auswechseln lassen. Typ **CLMPF0022DE04**,65V/120W.
4. Da die Lampe eine geringe UV-Strahlung aufweist,sollte direkter Blickkontakt vermieden werden.
5. Die Mitteldrucklampe weist ein gewisses Explosionsrisiko auf.Die nachstehenden Einbauanweisungen unbedingt beachten und die Lampe vorsichtig handhaben.

■ Auswechseln der Lampe

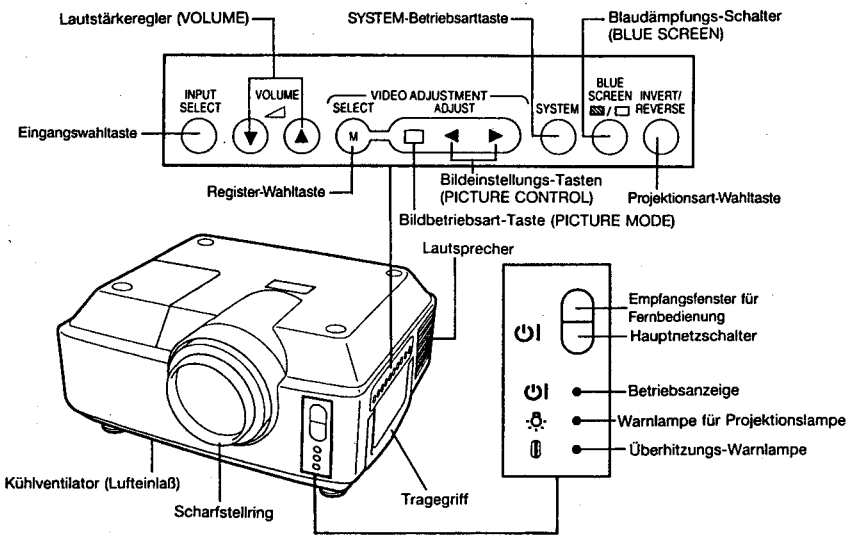
Hinweis:

Da die Lampe während des Betriebs extrem heiß wird,sollte das Auswechseln erst eine Stunde nach dem Ausschalten stattfinden(Abkühlzeit).
Beim Anbringen der neuen Lampe unbedingt darauf achten,daß die Birne nicht mit bloßen Fingern berührt wird.Die Lampe nur am Reflektor ②festhalten.
[Nur eine Originalbirne verwenden.]



GEFAHR ! — Die Spannungsversorgung niemals ohne eingebaute Lampe einschalten,um elektrische Schläge und Schäden des Gerätes zu vermeiden. Der Stabilisator erzeugt beim Einschalten hohe Spannungen.

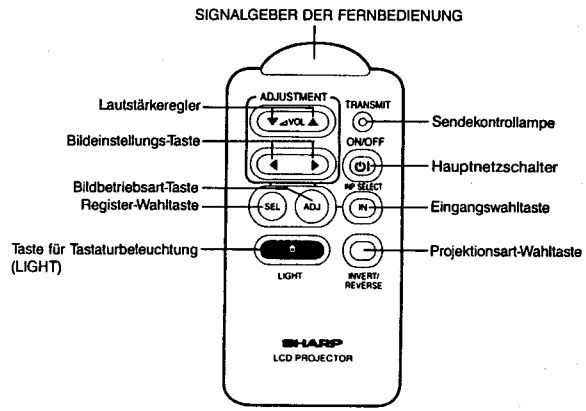
Lage der Bedienelemente

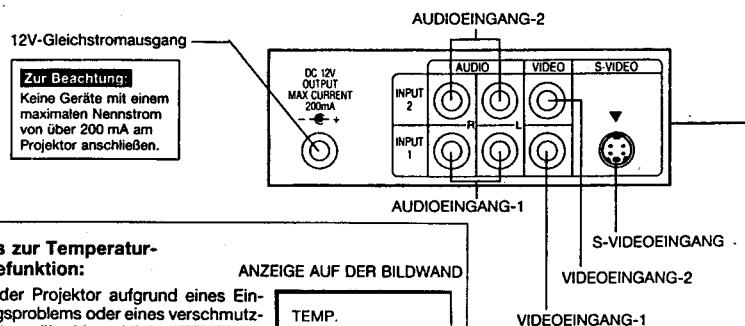


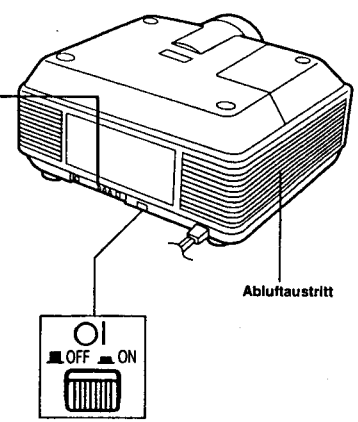
FERNBEDIENUNG

Vorsichtsmaßregeln für die Handhabung

Die Fernbedienung keinen Stößen, Flüssigkeiten oder hoher Feuchtigkeit aussetzen. Bei direktem Sonneneinfall und anderweitig starker Beleuchtung ist normales Funktionieren nicht gewährleistet. In solchen Fällen die Lichtquelle oder den LCD-Projektor anders positionieren.







Hinweis zur Temperatur-Anzeigefunktion:

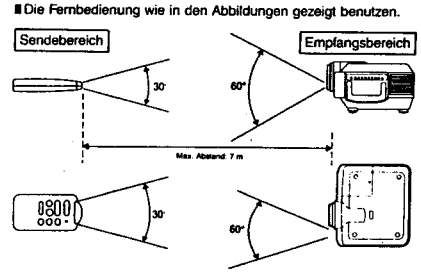
ANZEIGE AUF DER BILDWAND

TEMP.

- Wenn der Projektor aufgrund eines Einstellungsproblems oder eines verschmutzten Filters überhitzt, blinkt "TEMP" im Oberteil des Bildes. Wenn die Temperatur weiterhin ansteigt, wird die Temperatur-Überwachungsanzeige eingeschaltet und das Gerät schaltet sich aus. Siehe "Warnlampen", wenn die Warnung im Bild erscheint.
- Der Kühlventilator regelt die interne Temperatur; seine Leistung wird automatisch geregelt. Das Ventilatorgeräusch kann sich während des Betriebs aufgrund der Ventilatorgeschwindigkeit ändern.

Benutzung der Fernbedienung

- Die Fernbedienung wie in den Abbildungen gezeigt benutzen.



Benutzung der Fernbedienung in verdunkelten Räumen

Die LIGHT-Taste drücken.

- Die Tastatur bleibt daraufhin etwa 5 Sek. lang beleuchtet.

Hinweis:
Die Tastatur wird nur vorübergehend beleuchtet und erlischt auf Betätigung einer Taste.

Aufbau des Projektors

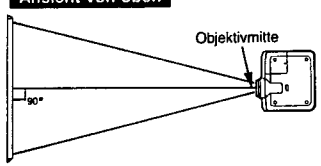
Vorsichtsmaßnahmen bei der Installation

Vorsicht bei der Aufstellung!
- Den Projektor nicht an feuchten oder staubigen Orten aufstellen und Orte vermeiden, an denen er Zigarettenrauch oder Ruß ausgesetzt ist. Wenn das Objektiv, der Spiegel und andere optische Bauteile verschmutzen, kann sich ein verschwommenes oder dunkles Bild ergeben, das die Betrachtung erschwert.
- Den Projektor nicht übermäßiger Hitze oder Kälte aussetzen.
  Betriebstemperatur: 5°C—40°C
  Lagertemperatur: −20°C—55°C

Beispiel für Bodenaufstellung

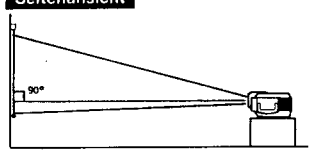
- Die Bildwand so anordnen, daß sie keinem direkten Sonnenlicht oder direkter Beleuchtung ausgesetzt ist. Direkt auf die Bildwand fallendes Licht ergibt blasse Farben und erschwert das Betrachten. Die Vorhänge schließen und die Beleuchtung reduzieren, wenn die Bildwand in einem hellen Raum verwendet wird.
- Die beste Bildqualität erhalten Sie, wenn der Projektor im Winkel von 90° zur Bildwand angeordnet ist. Projektor und Bildwand wie gezeigt zueinander positionieren.

Ansicht von oben



Den Projektor sollte auf Bildwandmitte eingefluchtet sein.

Seitenansicht



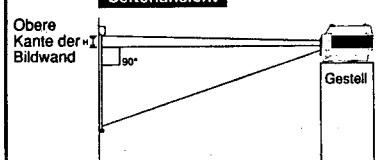
Die Unterkante des Objektivs sollte etwas höher als die untere Bildwand-Kante liegen.

Bei falscher Ausrichtung zwischen Projektor und Bildwand ergeben sich Bildverzerrungen, die das Betrachten erschweren.

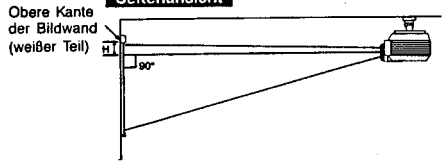
Beispiele für Deckenmontage und erhöhte Bodenaufstellung

- Der Projektor liefert die beste Bildqualität, wenn er im rechten Winkel zur Bildwand angebracht ist. Dazu wie unten gezeigt vorgehen.
- Zum Installieren des Projektors unbedingt den vom Hersteller empfohlenen Montagesatz und Montageadapter bzw. Ständer verwenden, die als Sonderzubehör erhältlich sind. Bitte wenden Sie sich dazu an Ihren SHARP-Händler.

Seitenansicht



Seitenansicht



- Das folgende Sonderzubehör ist erhältlich:
  Montagesatz für Deckenmontage: Montageplatte (AN-P3ZT)
  Verlängerungsrohr für AN-P3ZT (AN-TK201/AN-TK202)
  Für erhöhte Installation: Ständer (AN-P3ZH)
- Wenn Projektor und Bildwand nicht richtig zueinander positioniert sind, ergeben sich Bildverzerrungen, die das Betrachten erschweren.

Hinweis: Bei Fragen zum Aufbauen des Projektors wenden Sie sich bitte an Ihren SHARP-Händler.

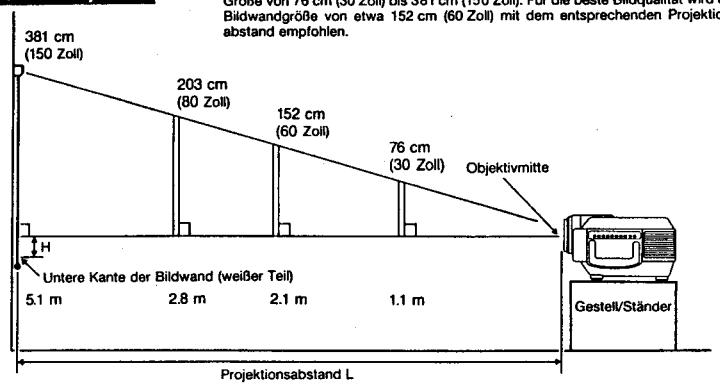
- Dieser Projektor ist mit einem Objektiv mit fester Brennweite ausgestattet.
  Siehe die folgende Abbildung zur Bestimmung der Bildgröße und des Projektionsabstandes.
- Das Bild kann eingestellt werden, wenn der Projektor in einem Abstand von 1 bis 4 Meter von der Bildwand aufgestellt ist. Den Projektor innerhalb dieses Bereiches aufstellen.

Abhängigkeit zwischen Projektionsabstand und Bildgröße

Bildgröße (diagonal)	Projectionsabstand L	Abstand zwischen Objektivmitte und der unteren Kante der Bildwand (H)
381 cm (150 Zoll)	5.1 m	58 cm
254 cm (100 Zoll)	3.6 m	38 cm
203 cm (80 Zoll)	2.8 m	31 cm
152 cm (60 Zoll)	2.1 m	23 cm
101 cm (40 Zoll)	1.5 m	16 cm
76 cm (30 Zoll)	1.1 m	12 cm

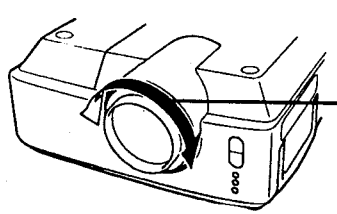
*Die Parameter zum Scharfstellen erlauben eine Projektion auf die Bildwand in der Größe von 76 cm (30 Zoll) bis 381 cm (150 Zoll). Für die beste Bildqualität wird eine Bildwandgröße von etwa 152 cm (60 Zoll) mit dem entsprechenden Projektionsabstand empfohlen.

Höhe des Projektors



- Nach dem Aufbau des Projektors die Schärfe wie folgt einstellen.

Scharfstellung



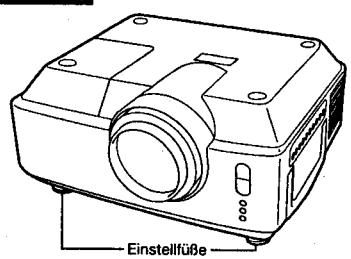
- Das Objektiv so einstellen, daß das projizierte Bild so scharf wie möglich ist.
- Siehe Einschalten des Gerätes.

Zur Scharfstellung des Bildes den Scharfstellring drehen.

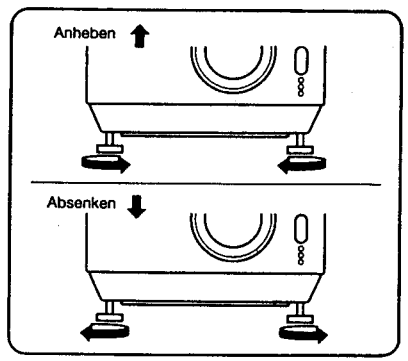
Einstellung von Horizontale und Höhe

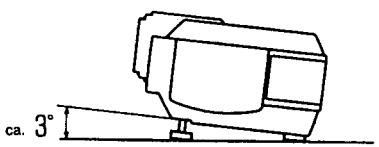
■Die Einstellfüße auf der Unterseite des Projektors zum Einstellen der Höhe verwenden.

Vorderansicht



Wenn die Höhe des Projektors mit den Einstellfüßen eingestellt wird, ist das Bild auf der Bildwand verzerrt, da der Projektor nicht mehr im rechten Winkel zur Bildwand steht.

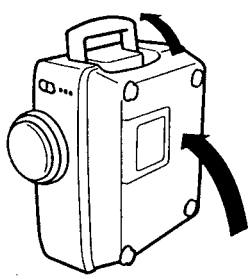




Einstellungen bis zu ca. 3° können vorgenommen werden.

Transport des Projektors

■Den Tragegriff zum Transportieren des Projektors verwenden.



Zum Transportieren des Projektors die Objektivkappe zum Schutz des Objektivs aufsetzen.

Den Projektor wie gezeigt auf die Seite stellen. Zum Transportieren des Projektors dann den Tragegriff benutzen.

Anschluß des Projektors

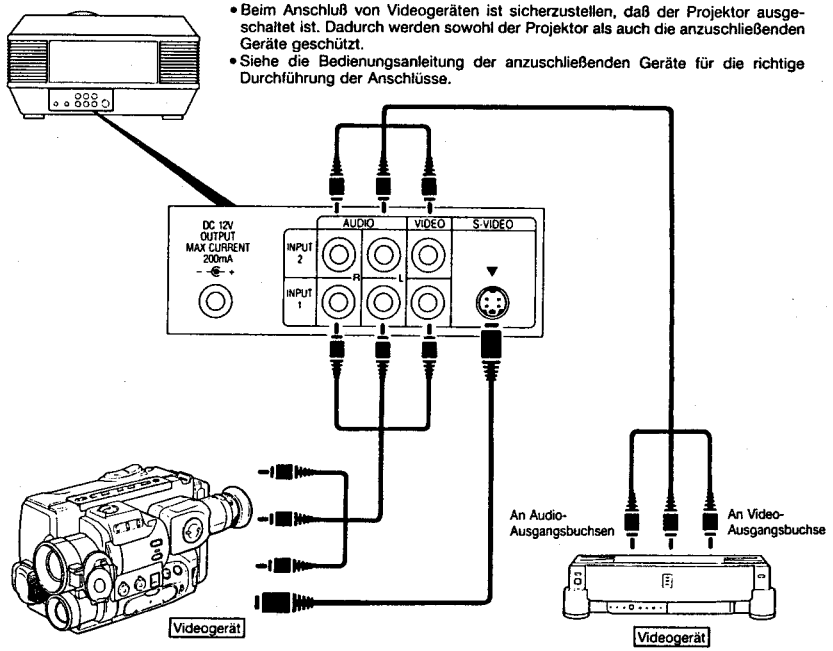
SYSTEM 1

Anschluß des Projektors an Videogeräte für die Wiedergabe.

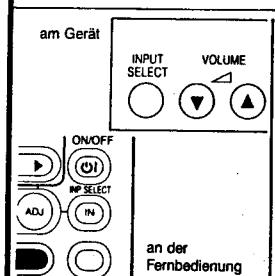
Rückseite

Hinweise:

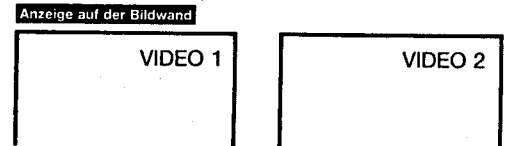
- Beim Anschluß von Videogeräten ist sicherzustellen, daß der Projektor ausgeschaltet ist. Dadurch werden sowohl der Projektor als auch die anzuschließenden Geräte geschützt.
- Siehe die Bedienungsanleitung der anzuschließenden Geräte für die richtige Durchführung der Anschlüsse.



Mit der AV Wahltaste VIDEO 1 oder VIDEO 2 einstellen.



Anzeige auf der Bildwand



Funktion für Prioritätseingang des S-Videoanschlusses.
Der Videoeingangsanschluß 1 und der S-Videoeingangsanschluß an diesem Projektor sind so eingestellt, daß der S-Videoeingang Vorrang hat.

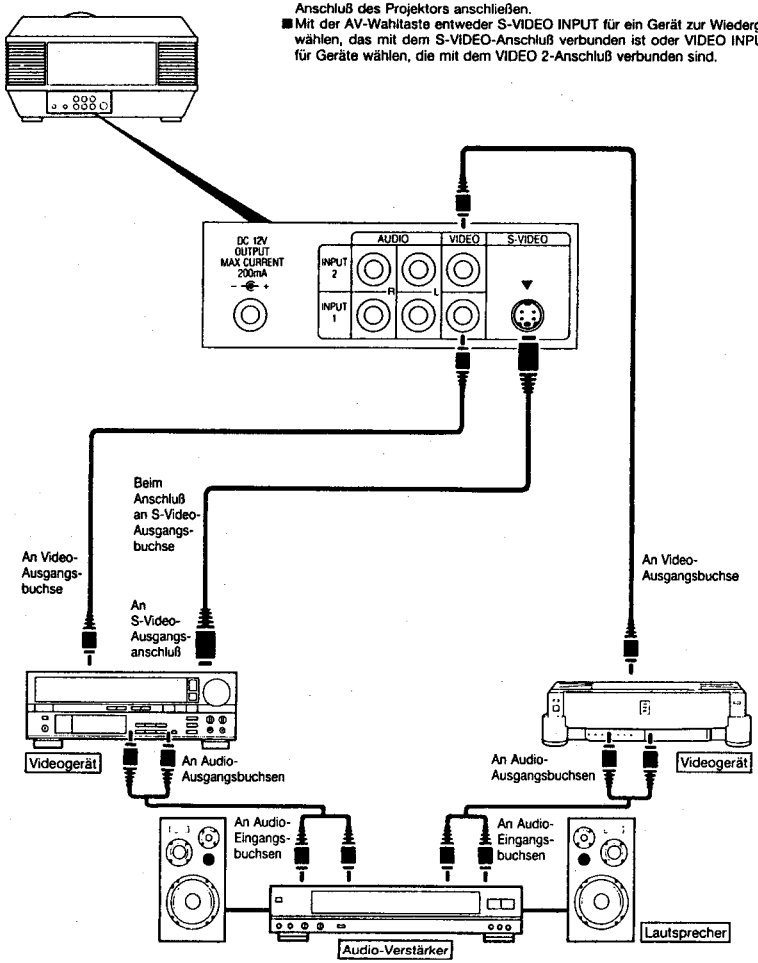
- Wenn Videogeräte an beiden Anschlüssen angeschlossen sind, wird das Videosignal vom S-Videoeingangsanschluß auf dem Bildschirm angezeigt.
- Zur Darstellung des Videosignals von Videogeräten, die am Videoeingangsanschluß 1 angeschlossen sind, wird der Stecker vom S-Videoeingangsanschluß abgetrennt.

SYSTEM 2

Anschluß des Projektors an Video- und Audiogeräte für die Wiedergabe. (Mit einem Audio-Verstärkeranschluß.)

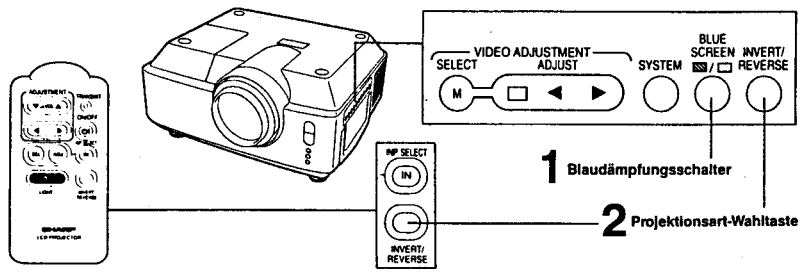
Rückseite

- Beim Anschluß von Geräten mit einem S-Videoausgang, z.B. einem S-VHS-Videorecorder, und einem oder mehreren Videorecordern an einen AV-Verstärker immer das Gerät am S-VIDEO-Anschluß und dem VIDEO-2 JACK-Anschluß des Projektors anschließen.
- Mit der AV-Wahltaste entweder S-VIDEO INPUT für ein Gerät zur Wiedergabe wählen, das mit dem S-VIDEO-Anschluß verbunden ist oder VIDEO INPUT 2 für Geräte wählen, die mit dem VIDEO 2-Anschluß verbunden sind.



Sonstige Funktionen

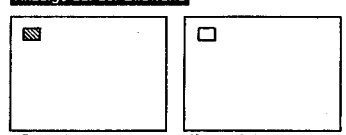
- Bei eingeschalteter Blaudämpfungs-Funktion wird die Anzeige auf der Bildwand auf blau geschaltet, wenn kein Videosignal in den Projektor eingegeben wird.
- Den Blaudämpfungs-Schalter zum Ausschalten der Blaudämpfungs-Funktion noch einmal drücken.



1 Blaudämpfungs-Funktion

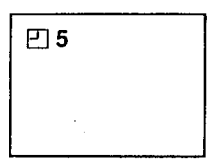
- Beim Drücken des Blaudämpfungs-Schalters wird für einige Sekunden die folgende Anzeige auf der Bildwand angezeigt.

Anzeige auf der Bildwand



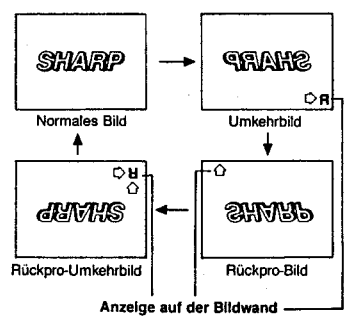
(Eingeschaltete Blaudämpfungs-Funktion) (Ausgeschaltete Blaudämpfungs-Funktion)

- Bei Einstellung des Blaudämpfungs-Schalters auf die ▨-Position (ON) wird der Projektor auf Blauwiedergabe umgeschaltet, wenn kein Signal oder Rauschen eingegeben wird. (Wenn die Blaudämpfungs-Funktion länger als 15 Minuten eingeschaltet ist, wird die automatische Abschaltfunktion aktiviert und das Gerät automatisch ausgeschaltet. Fünf Minuten vor dem Ausschalten wird die verbleibende Zeit (in Minuten) in Abständen von einer Minute in der linken oberen Ecke der Bildwand angezeigt.)

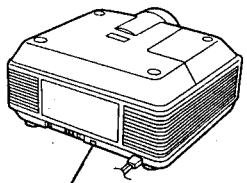


2 Bildumkehr und Rückprojektion

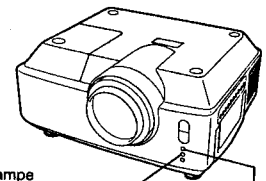
Die Projektionsart-Wahltaste ermöglicht das Umschalten auf spiegelbildliche (Umkehrbild) und invertierte (Rückpro-Bild) Bildwiedergabe. Dazu kann durch wiederholtes Drücken in der unten gezeigten Weise weitergeschaltet werden. Beim Umschalten erscheint für einige Sekunden eine Anzeige auf der Bildwand.



Verwendung des Projektors

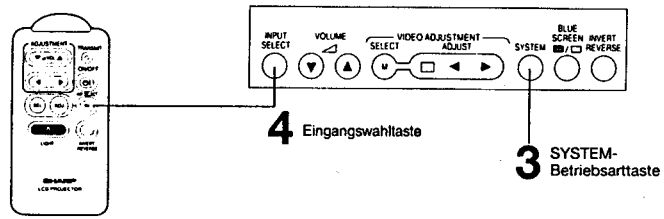


1 Hauptnetzschalter



2 Warnlampe zum Auswechseln der Projektionslampe (LAMP)

1·2 Betriebsanzeige (POWER)

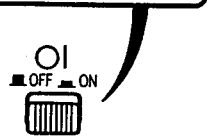


4 Eingangswahltaste

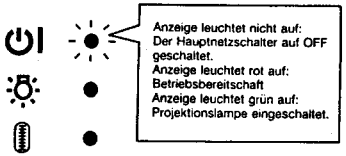
3 SYSTEM-Betriebsarttaste

1 Den Hauptnetzschalter einschalten.

Den Hauptnetzschalter auf ON stellen.



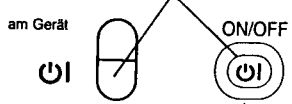
- Bei der erstmaligen Verwendung des Projektors oder wenn die Betriebsanzeige nicht aufleuchtet, wird der Hauptnetzschalter auf ON gestellt. (Anzeige leuchtet rot auf.)
- Die Betriebsanzeige erlöscht, wenn der Hauptnetzschalter auf OFF geschaltet wird.

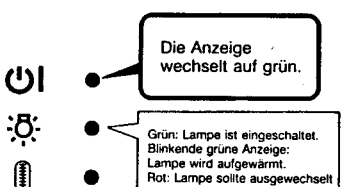


Anzeige leuchtet nicht auf: Der Hauptnetzschalter auf OFF geschaltet.
Anzeige leuchtet rot auf: Betriebsbereitschaft
Anzeige leuchtet grün auf: Projektionslampe eingeschaltet.

2 Einschalten der Lampe

Den Lampen-Netzschalter (ON/OFF) am Gerät oder an der Fernbedienung drücken.





Die Anzeige wechselt auf grün.

Grün: Lampe ist eingeschaltet. Blinkende grüne Anzeige: Lampe wird aufgewärmt.
Rot: Lampe sollte ausgewechselt werden.
Siehe "Warnungsanzeigen" für weitere Hinweise.

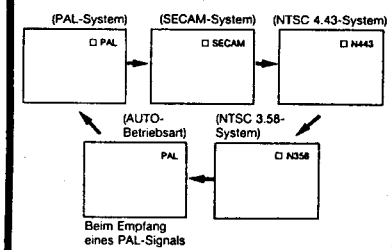
Hinweis:

- Selbst wenn das Gerät mit der POWER-Taste ausgeschaltet wird, arbeitet der Kühlventilator so lange, bis die interne Temperatur des Projektors abgekühlt ist (ca. 90 Sekunden). Nicht das Netzkabel abtrennen oder den Netzschalter auf der Rückseite ausschalten, bis der Ventilator seinen Betrieb einstellt. Ein Nichtbefolgen dieses Hinweises kann die Lebensdauer der Lampe und des LCD-Bildschirms verringern.
- Wenn der Projektor sofort nach dem Ausschalten wieder eingeschaltet wird, kann bis zum Einschalten der Lampe eine kurze Zeit vergehen. *(Während dieser Zeit blinkt die Betriebsanzeige für die Projektionslampe grün.)*

3 Systemwechsel

Die SYSTEM-Betriebsarttaste am Gerät drücken.

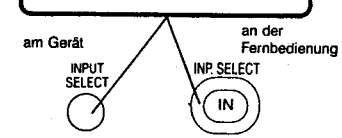
- Beim Drücken der Taste wird das gewählte Fernsehsystem in der oberen rechten Ecke der Bildwand für einige Sekunden angezeigt.



*In der automatischen Betriebsart wird "PAL", "SECAM", "NTSC 4.43" oder "NTSC 3.58" für einige Sekunden auf der Bildwand angezeigt, wenn die Betriebsart automatisch geändert wird.

4 Eingangswahl

Die Eingangswahltaste am Gerät oder an der Fernbedienung drücken.

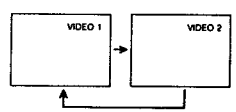


- **INPUT SELECT Taste auf dem Bedienfeld des Projektors**

Beim Drücken der Taste ändert sich die Anzeige wie folgt:

VIDEO 1 ⟶ VIDEO 2

Die Anzeige auf der Bildwand ändert sich wie in der folgenden Abbildung.



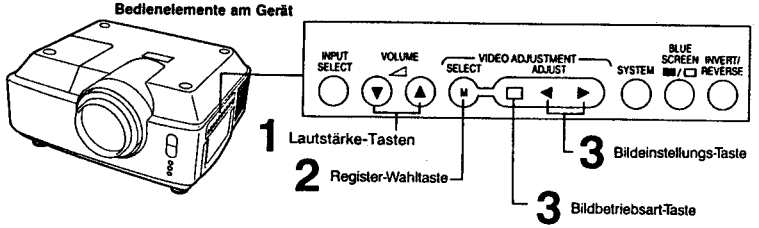
Hinweise:

- Dieser Projektor ist mit drei Videoeingangs-Systemen ausgestattet: S-Video, Video-1 und Video-2.
- Zur Wahl zwischen diesen Systemen die INPUT SELECT-Taste zur Wahl des Eingangs von den VIDEO-1-(S-VIDEO hat Vorrang) oder VIDEO-2-Buchsen verwenden.

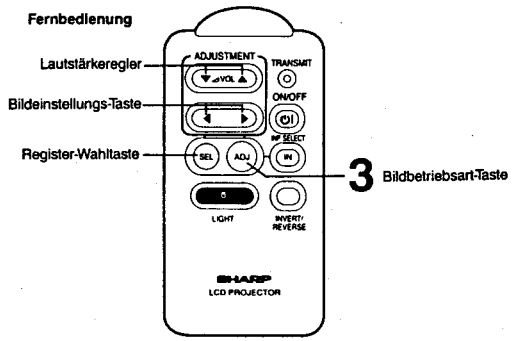
Bild- und Toneinstellungen

■ Das Bild dieses Projektors ist ab Werk auf Standard-Wiedergabe eingestellt. Mit den VIDEO ADJUST-Tasten kann das Bild nach Wunsch eingestellt werden.
■ Die Einstellungen mit den Tasten werden gespeichert.

Bedienelemente am Gerät

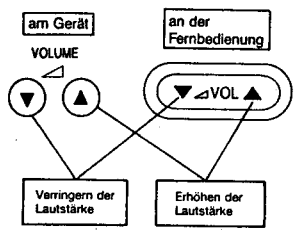


Fernbedienung

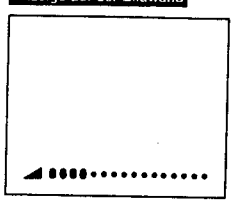


1 Einstellung der Lautstärke

Die Lautstärke am Gerät oder an der Fernbedienung regeln.



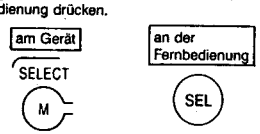
Anzeige auf der Bildwand



Die Anzahl der angezeigten Punkte (0–16) verringert oder erhöht sich je nach Einstellung der Lautstärke.

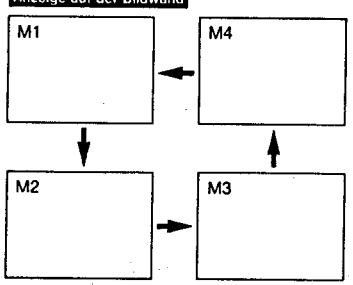
2 Einstellen der Bildlage

Die Register-Wahltaste am Gerät oder an der Fernbedienung drücken.



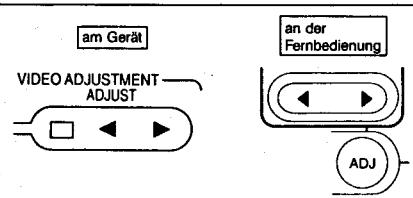
Mi Taste das gewünschte Speicherregister wählen. Jedes der vier Register kann mit Bildeinstellungen Ihrer Wahl belegt werden.
Durch Drücken der Taste während der Anzeige der Einstellungen auf der Bildwand kann in folgender Weise weitergeschaltet werden:

Anzeige auf der Bildwand

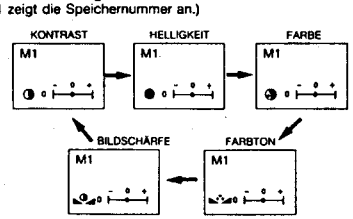


3 Bildeinstellungen

Die Bildbetriebsart- und Bildeinstellungs-Tasten zur gewünschten Einstellung verwenden.



Beim Drücken der Bildbetriebsart-Taste ändert sich die Bild-Betriebsart wie folgt.
(M1 zeigt die Speichernummer an.)



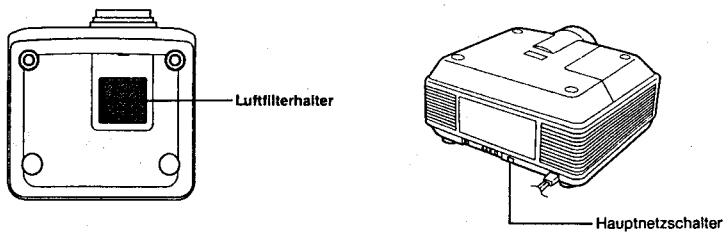
- Die einzustellende Betriebsart wählen und mit den Bildeinstellungs-Tasten die Einstellungen vornehmen.
  * Die Betriebsarten werden für einige Sekunden auf der Bildwand angezeigt. Die Einstellungen müssen während der Anzeige auf der Bildwand vorgenommen werden.

Die Farbton-Einstellung kann nur bei einem NTSC-Signal durchgeführt werden.

Wartung

Reinigung des Luftfilters

■Der Filter sollte alle 100 Betriebsstunden gereinigt werden. Wenn der Projektor Staub oder Rauch ausgesetzt ist, sollte der Filter öfter gereinigt werden.
•Wenn der Luftfilter zu schmutzig zum Reinigen ist, sollte er ausgewechselt werden. Wenden Sie sich in diesem Fall an den Händler.

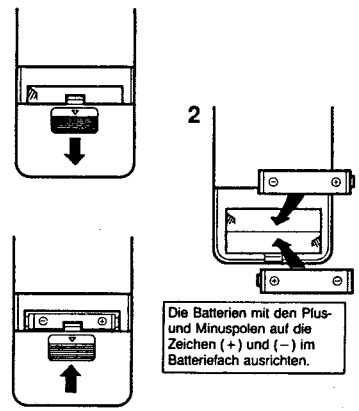


Einlegen der Batterien (Fernbedienung)

■Die mitgelieferten Batterien (zwei Lady-Zellen) sind dieser Bedienungsanleitung beigepackt.

1 Zum Öffnen des Batteriefachs die rückseitige Abdeckung nach unten aufschieben.
2 Die beiliegenden Batterien einlegen (zwei Lady-Zellen AM4).
3 Die Abdeckung wieder schließen.

Hinweise:
Batterien können bei falscher Behandlung explodieren oder auslaufen.
- Sicherstellen, daß die Plus- und Minuspole der Batterien wie gezeigt ausgerichtet sind.
- Die Batterien entnehmen, wenn die Fernbedienung längere Zeit nicht benutzt wird. Darauf achten, daß die Batterien nicht verschmutzen.
- Die Batterien nicht verschmutzen lassen.
- Nicht unterschiedliche Batterien zusammen verwenden. Alte Batterien nicht zusammen mit neuen verwenden, da dies die Lebensdauer der neuen Batterien verkürzen würde. Auch besteht die Gefahr des Auslaufens.
- Verbrauchte Batterien entnehmen, da Batterieflüssigkeit auslaufen könnte. Ausgelaufene Flüssigkeit mit einem trockenen Tuch entfernen und nicht berühren, da dies zu Hautreizungen führen kann.
- Die Lebensdauer von Batterien kann je nach Bedingungen und Dauer ihrer Lagerung unterschiedlich sein. Verbrauchte Batterien frühzeitig ersetzen.

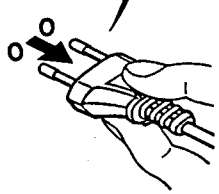


1 Gerät ausschalten

Den Hauptnetzschalter auf OFF stellen.

2 Ziehen des Netzsteckers

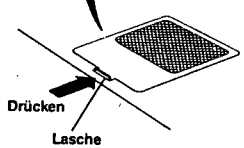
Zum Ziehen des Netzsteckers bitte am Stecker anfassen und keinesfalls am Kabel ziehen.



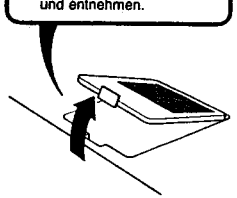
In manchen Ländern kann die Form des Steckers von der Abbildung abweichen.

3 Den Luftfilter entfernen.

1. Die Lasche in Pfeilrichtung andrücken.

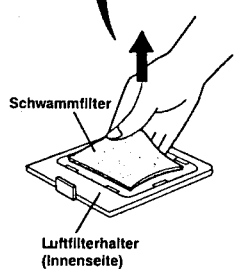


2. Den Filterhalter hochstellen und entnehmen.



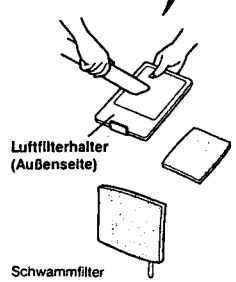
4 Den Schwammfilter entfernen.

Den Schwammfilter mit den Fingern herausziehen.



5 Den Luftfilter reinigen.

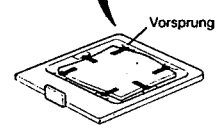
Den Staub von Luftfilter und Schwammfilter mit einem Staubsauger absaugen.



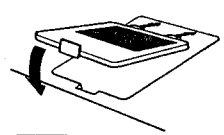
•Den Filter in warmem Wasser mit einem neutralen Lösungsmittel reinigen, wenn der Filter stark verschmutzt ist. Den Filter im Schatten trocknen lassen.

6 Den Luftfilter auswechseln.

Den Schwammfilter wieder einlegen und unter die 6 Vorsprünge im Luftfilterhalter schieben.



1. Mit den Vorsprüngen in die Aussparungen einsetzen.



2. Den Filterhalter schließen und einrasten lassen.

Hinweis:
- Sicherstellen, daß die FILTERABDECKUNG richtig angebracht ist. Das Gerät kann nicht eingeschaltet werden, wenn die Filtereinheit nicht richtig installiert ist.

Lampe

■Die Projektionslampe hat eine begrenzte Lebensdauer.

Wenn die Lampe fast verbraucht ist, nehmen die Bild- und Farbqualität ab. Die Lampe durch den Kundendienst auswechseln lassen.

Das Auswechseln der Projektionslampe erfordert technische Fachkenntnisse und sollte nur durch Ihren Sharp-Händler oder den Sharp-Kundendienst erfolgen.

Warnanzeigen

■Die Warnlampen des Projektors leuchten auf, wenn irreguläre Bedingungen vorliegen.
■Der Projektor besitzt Warnlampen für Überhitzung und für erforderliches Auswechseln der Lampe.
■Im Falle eines Defekts leuchtet die Überhitzungs- oder Projektionslampen-Warnlampe rot auf und das Gerät schaltet sich aus. In solchen Fällen den Hauptnetzschalter ausschalten und die folgenden Prüfungen vornehmen.

Warnanzeige	Symptom	Mögliche Fehlerquellen	Maßnahmen
Überhitzungs-Warnlampe	Innentemperatur zu hoch.	•Lufteinlässe blockiert	•Projektor an einer günstigeren Stelle aufstellen.
		•Luftfilter zugesetzt	•Luftfilter reinigen
		•Kühlgebläse defekt •Interne Schaltungen defekt	Projektor in Reparatur geben.
Projektionslampen-Warnlampe	Projektionslampe leuchtet nicht.	•Projektionslampe am Ende ihrer Lebensdauer •Projektionslampenschaltkreis defekt	Projektor in Reparatur geben.

HINWEISE:

Wenn die Überhitzungs-Warnlampe rot aufleuchtet und das Gerät ausgeschaltet wird, stellt sich der Projektor auf die Bereitschafts-Betriebsart ein.
Nach dem Ausschalten des Projektors warten, bis die Temperatur im Inneren des Gerätes vor dem Wiedereinschalten ausreichend abgekühlt ist (mindestens fünf Minuten).

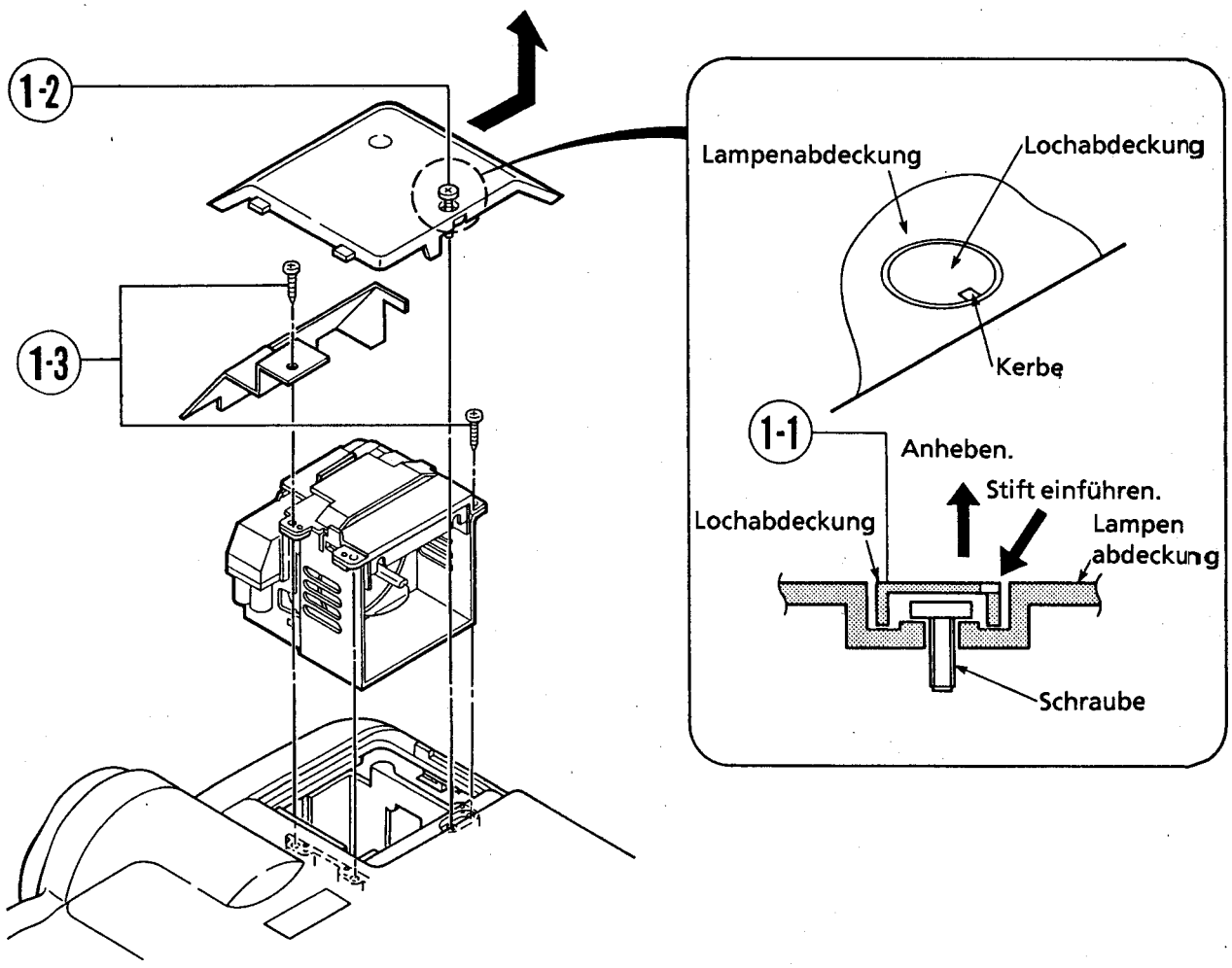
Wenn der Projektor kurz nach dem Ausschalten erneut eingeschaltet werden soll, wie z.B. nach einer kurzen Pause, kann es vorkommen, daß die Projektionslampen-Warnlampe anspricht und das Gerät sich nicht einschalten läßt. In solchen Fällen den Hauptnetzschalter aus- und wieder einschalten.

Kein Bild	•Der Projektor ist nicht an eine Netzsteckdose angeschlossen. •Der Hauptnetzschalter (MAIN POWER) ist ausgeschaltet. •Der Helligkeits-Regler (–) und Kontrast-Regler (–) sind auf die Minimum-Position eingestellt. •Der Filter ist falsch oder nicht eingesetzt.
Schwache oder verschwommene Farben	•Sind die Farben (siehe "Bild- und Toneinstellungen") richtig eingestellt?
Verschwommenes Bild	•Die Schärfe einstellen. •Der Projektionsabstand ist zu groß oder zu klein für eine richtige Scharfstellung.
Aus dem Gehäuse kommen manchmal außergewöhnliche Geräusche.	•Wenn das Bild normal ist, entstehen Geräusche durch Verziehungen des Gehäuses durch Temperaturänderungen. Dies hat keinen Einfluß auf den Betrieb.
Warnanzeige leuchtet auf.	•Siehe "Warnlampen"
Kein Ton	•Überprüfen, ob der Lautstärkeregler vollständig zurückgedreht ist •Überprüfen und sicherstellen, daß die Kabel auf der Rückseite des LCD-Projektors richtig angeschlossen sind.

AUSBAU DER HAUPTKOMPONENTEN

1. Entfernen der Lampeneinheit

1-1. Einen Stift in die Einkerbung der Lochabdeckung einführen, dann anheben die und Lochabdeckung entfernen.
1-2. Die Schraube losdrehen und die Lampenabdeckung entfernen.
1-3. Die beiden Schrauben losdrehen und die Lampeninheit entfernen.



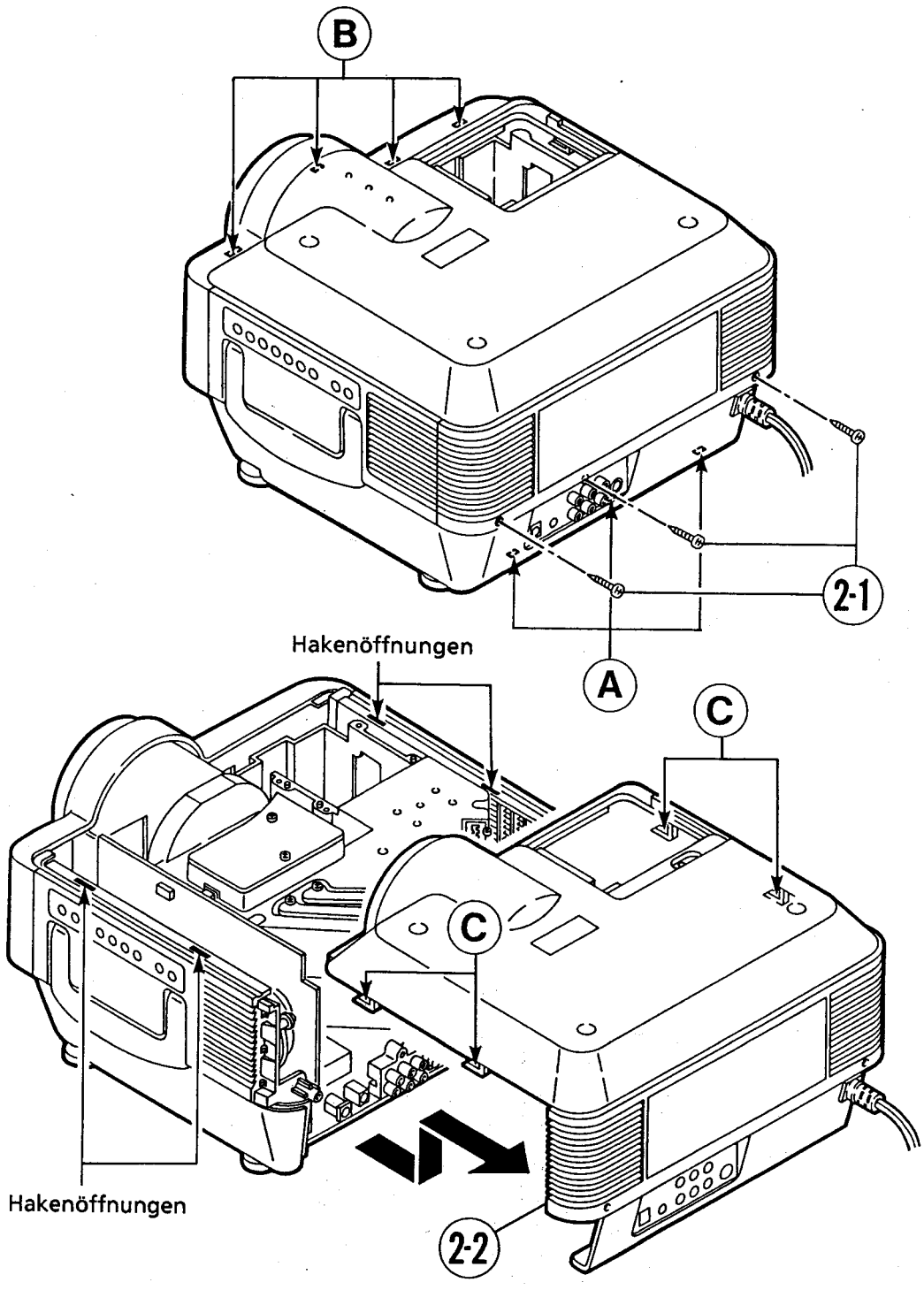
2. Entfernen des hinteren oberen Gehäuseteils

2-1. Die drei Schrauben an der Geräterückseite losdrehen.

Hinweis: Das hintere untere Gehäuseteil aushaken (zuerst die drei Haken (A), dann die vier Haken (B) an der oberne Frontseite).

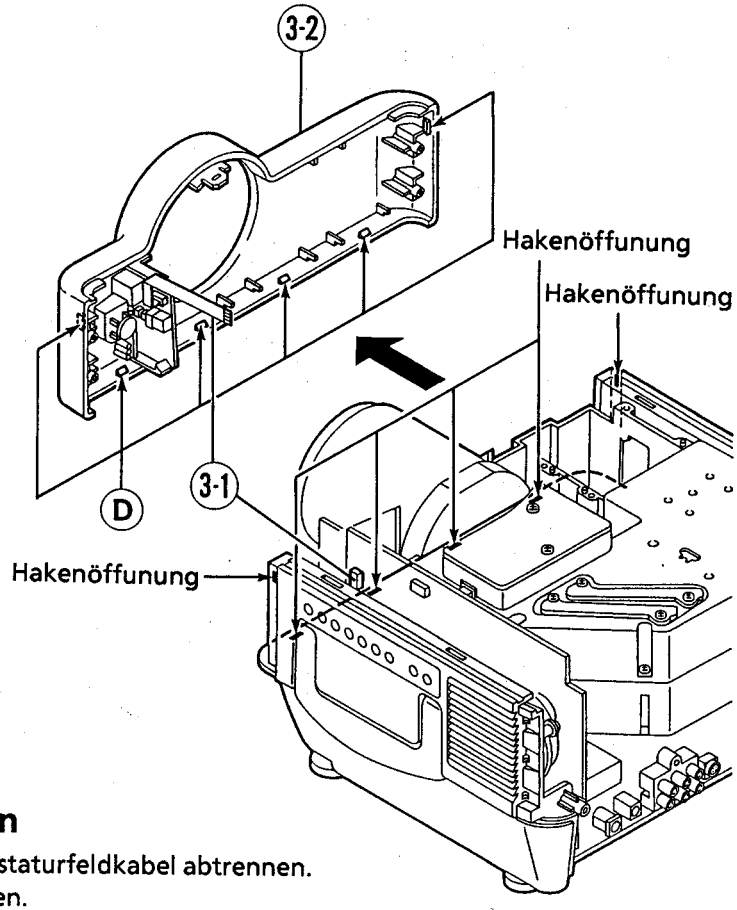
2-2. Das hintere obere Gehäuseteil entfernen.

Hinweis: Die vier Haken (C) nach hinten ziehen und aushaken. Dann das Gehäuseteil geringfügig anheben und nach hinten ziehen.



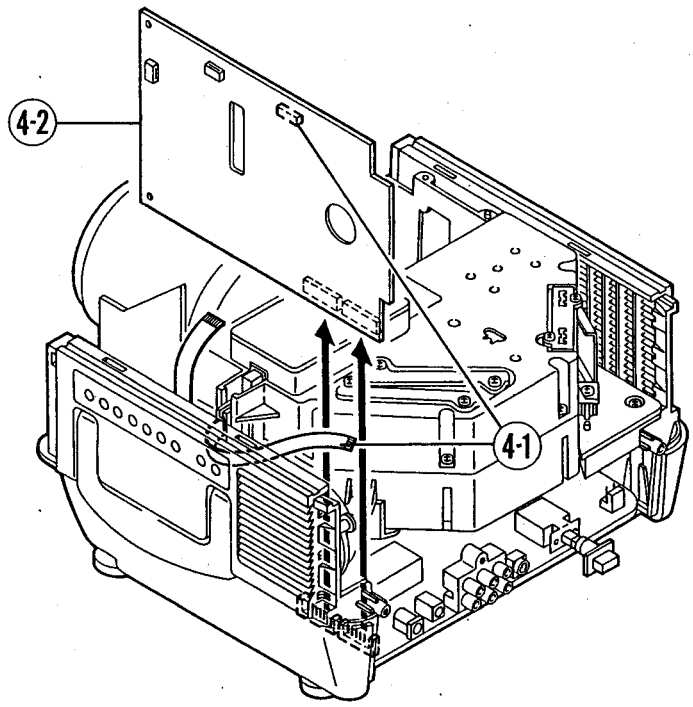
3. Entfernen des vorderen Gehäuseteile

3-1. Das LED-Platinenkabel vom Stecker an der Huptplatine abziehen.
3-2. Die sechs Haken (D) (einer an jeder Seite und vier an der Unterseite) aushaken und das vordere Gehäuseteil abnehmen.

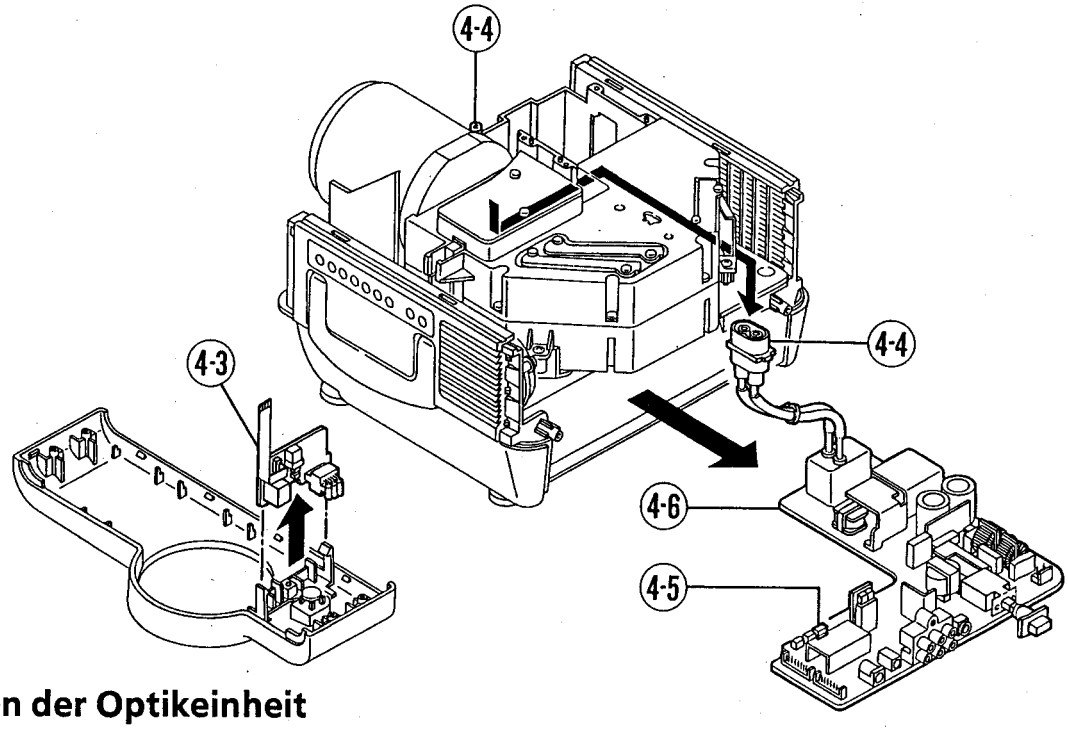


4. Entfernen der Platinen

4-1. Das LCD-Kabel und das Tastaturfeldkabel abtrennen.
4-2. Die Hauptplatine entfernen.

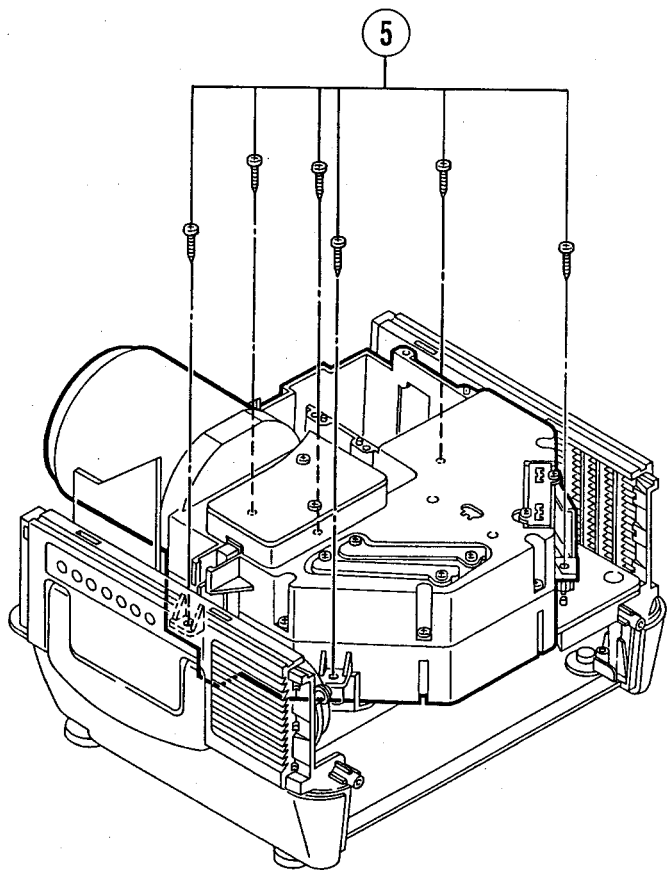


4-3. Die oberen und unteren Haken lösen und die LED-Platine entfernen.
4-4. Die Schraube losdrehen und die Lampenhalternung herausnehmen.
4-5. Die Kabel des Lautsprecherschalters, Sauggebläseschalters und des Zungenschalters abtrenen.
4-6. Nun die Netz/Vorschaltplatine entfernen.



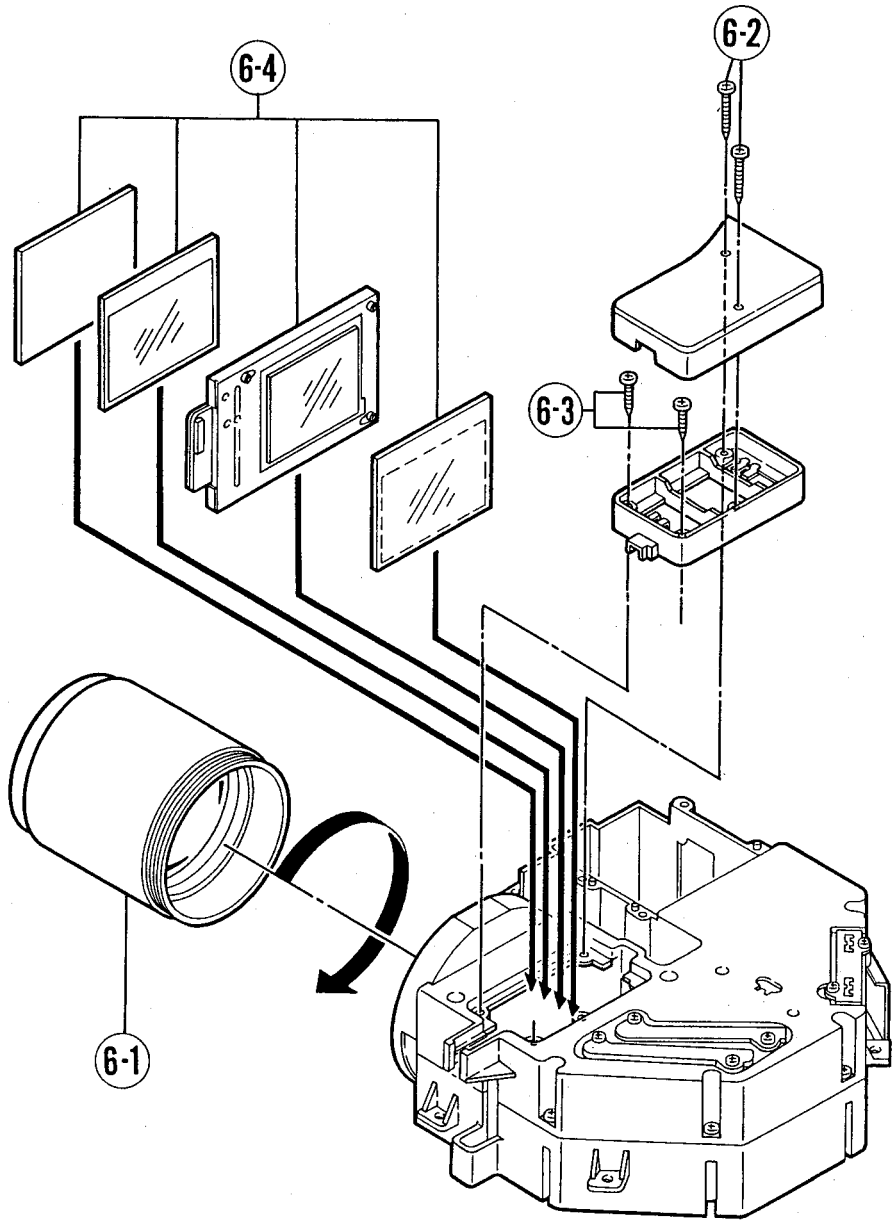
5. Entfernen der Optikeinheit

Die sechs Schrauben losdrehen und die Optikeinheit herausnehmen.



6. Zerlegen des Mechanismus für die Optikeinheit

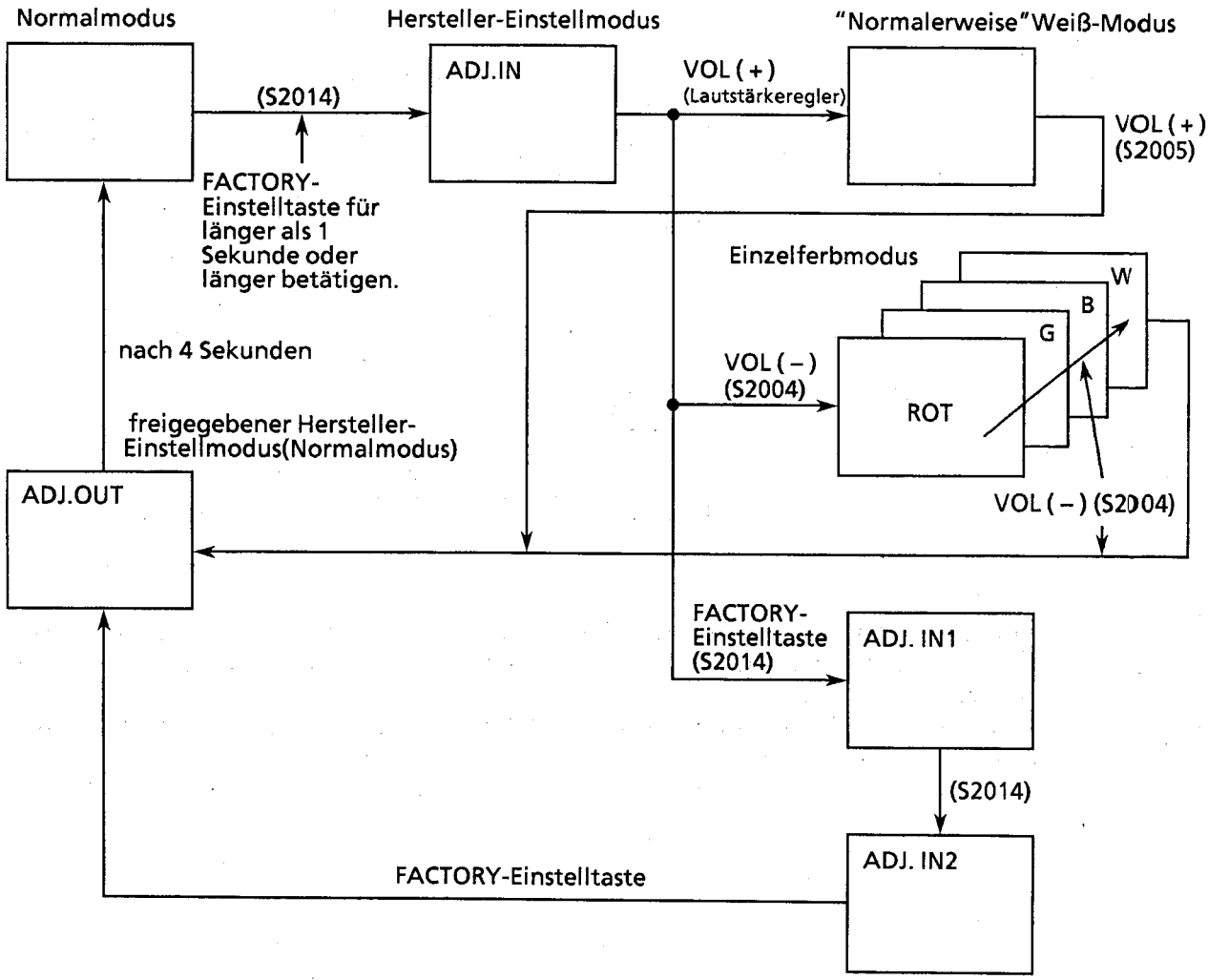
6-1. Die Projektionslinse gegen den Uhrzeigersinn drehen und abnehmen.
6-2. Die beiden Schrauben losdrehen und das Obertil entfernen.
6-3. Die beiden Schrauben losdrehen und das Untertil entfernen.
6-4. Die einzelnen optischen Bauteile nach oben ziehen und entfernen (Fresnellinse, Ausfallslicht-Ablenkspiegel, LCD-Feld und Einfallslicht-Ablenskpiegel).



FACTORY-EINSTELLMODUS (Hersteller-Einstellmodus)

FACTORY-EINSTELLSCHALTER(S2014)

Den FACTORY-Einstellschalter für länger als 1 Sekunde betätigen, um in den Hersteller-Einstellmodus zu schalten.
Im Hersteller-Einstellmodus werden mit den Tasten die folgenden Einstellungen erzielt:



Die Hersteller-Einstelltaste im Normalmodus länger als eine Sekunde gedrückt halten, worauf der Hersteller-Einstellmodus angewählt und "ADJ.IN"am Bildschirm angezeigt wird.
Bei angezeigtem "ADJ.IN"lassen sich die Tasten VOL (+) , VOL (–) und FACTORY verwenden, um die oben dargestellten und nachfolgend erwähnten Modi anzuwählen.

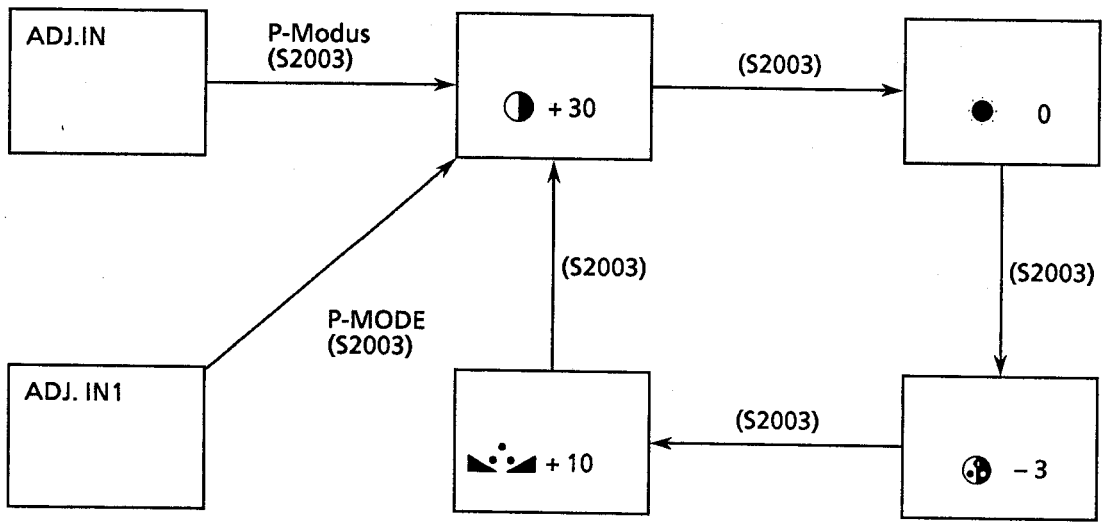
"Normalerweise"Weiß-Modus

In diesem Modus verändert sich die Farbe des Bildschirms normalerweise auf weiß. Die VOL (+)(S2005)-Taste erneut drücken, worauf "ADJ.OUT"zuerst am Bildschirm erscheint.
Danach wird wieder der Normalmodus zurückgerufen.Im "normalerweisen"Weiß-Modus ist nur die VOL (+)(S2005)-Taste wirksam.

Einzelfarbmodus

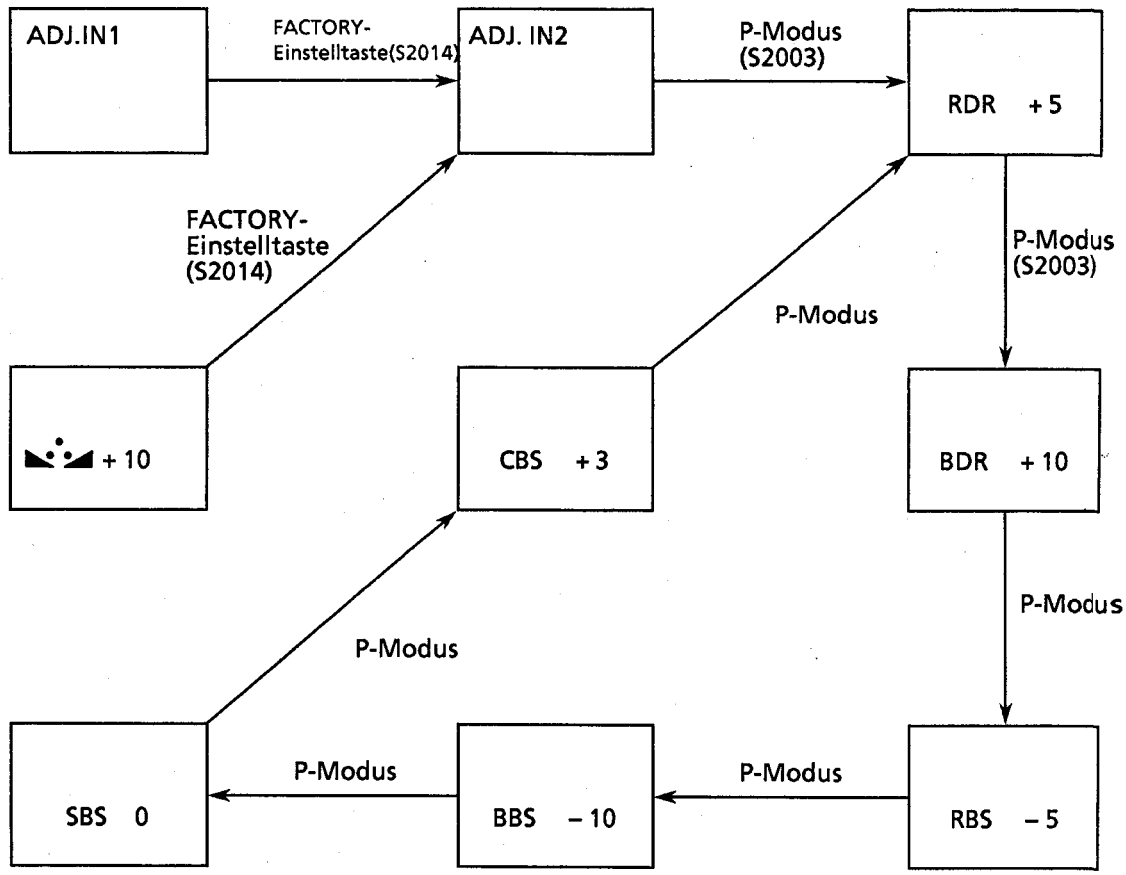
In diesem Modus erscheint eine Einzelfarbe auf dem Bildschirm. Die VOL(+)(S2005)-Taste drücken, worauf sich die Farbe in folgender Reihenfolge verändert : ROT→GRÜN→BLAU→WEISS→ADJ.OUT.Im Einzelfarbmodus ist nur die VOL(-)(S2005)-Taste wirksam.

ADJ.IN1-Modus



Im ADJ.IN oder ADJ.IN1-Modus die P-Modus(S2003)-Taste drücken,um die Video-Einstellposten auf den Bildschirm anzuzeigen.Bei jedem Druck auf die S2003-Taste verändern sich die Einstellposten in der oben dargestellten illustrierten Reihenfolge.
Bei beliebigen Einstellposten auf dem Bildschirm die FACTORY (S2014)-Taste drücken,worauf der ADJ.IN2-Modus auf dem Bildschirm angezeigt wird.

ADJ.IN2-Modus

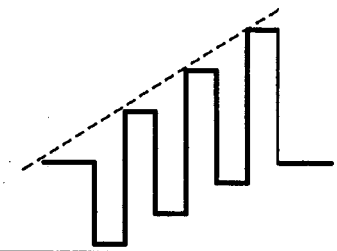
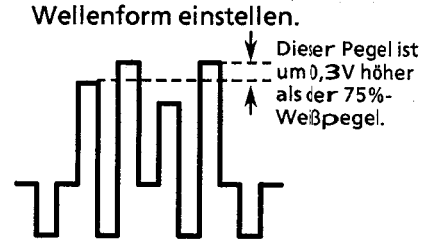
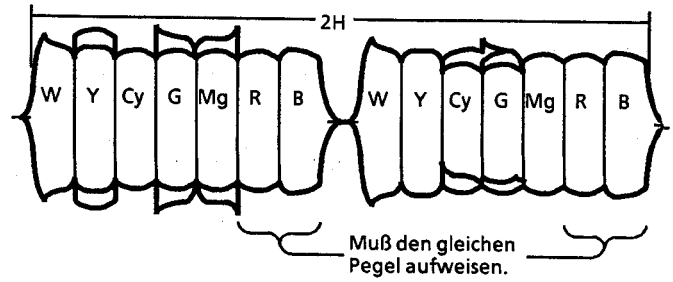


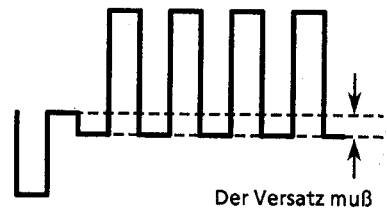
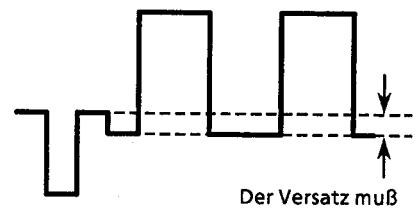
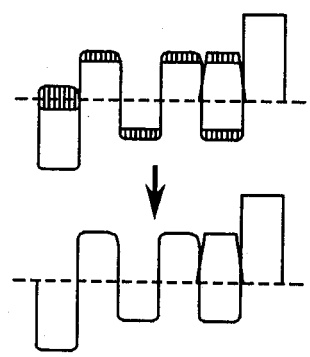
Im ADJ. IN1-Modus oder mit beliebigen ADJ.IN1-Einstellposten am Bildschirm die FACTORY (S2014)-Einstelltaste drücken. Der ADJ.IN2-Modus wird daraufhin auf den Bildschirm gebracht.
Im ADJ.IN2-Modus die P-Modus (S2003)-Taste drücken.Die Treiber-und Vorspannungseinstellposten verändern sich in der oben dargestellten Reihenfolge.
Mit beliebigen Einstellposten am Bildschirm die FACTORY(S2014)-Einstelltaste drücken.ADJ.OUT-Modus wird daraufhin auf zuerst auf den Bildschirm gebracht.
Danach wird wieder der Normalmodus zurückgerufen.
Mit beliebigen Einstellposten am Bildschirm in den ADJ.IN1-oder ADJ.IN2-Modi die SYSTEM (S2010)-Taste drücken, worauf alle Einstellposten für eine gemeinsame Überprüfung am Bildschirm angezeigt werden.

ELEKTRISCHE EINSTELLUNG

Hinweis: Wenn nicht anderweitig bestimmt,sind sämtliche Einstellungen unter Standardbedingungen auszuführen.

Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
1	**Initialisierung des Mikroprozessors**	• Sicherstellen,daß der Mikroprozessor initialisiert wird.Sämtliche Einstellwerte sind nun initialisiert,um das Gerät für die Einstellung bereit zu haben.	• Die S2014-Taste für länger als 1 Sekunde oder länger betätigen.→"ADJ.IN"erscheint am Bildschirm. • Die S2006-Taste für länger als 1 Sekunde oder länger betätigen.→"SET2"erscheint am Bildschirm.
2	**Automatische Verstärkungs-regelung (AGC): R1546**	• Das NTSC-Monoskopmuster-Signal empfangen. • Ein Voltmeter zwischen TP2-7 stiften und Masse anschließen.	• R1546 so einstellen, daß das Voltmeter 4,5 ± 0,2V anzeigt.
3	**Nebenhelligkeit: ADJ.IN1**	• Das NTSC-Farbbalkensignal empfangen. • Die Helligkeit im ADJ.IN1-Modus einstellen. • Das Oszilloskop zwischen TP4-5 stiften und Masse anschließen.	• Mit den DAC(+)/(−)Tasten so einstellen, daß der Schwarzwertimpuls -2,2 ± 0,05V Gleichspannung aufweist.
4	**Nebenkontrast:ADJ. IN1**	• Das NTSC-Farbbalkensignal empfangen. • Den Kontrast im ADJ.IN1-Modus einstellen. • Das Oszilloskop zwischen TP4-5 stiften und Masse anschließn.	• Mit den DAC(+)/(−)Tasten so einstellen, daß der Weißspitzenpegel 0,8 ± 0,05V Gleichspannung aufweist.
5	**R-Treiber: ADJ.IN2 RDR**	• Das NTSC-Farbbalkensignal empfangen. • RDR im ADJ.IN2-Modus einstellen. • Das Oszilloskop zwischen TP4-4 stiften und Masse anschließen.	• Mit den DAC(+)/(−)Tasten so einstellen,daß der 100%-Weißpegel 0,8 ± 0,05V Gleichspannung aufweist.
6	**B-Treiber: ADJ.IN2 DR**	• Das NTSC-Farbbalkensignal empfangen. • BDR im ADJ.IN2-Modus einstellen. • Das Oszilloskop zwischen TP4-6 stiften und Masse anschließen.	• Mit den DAC (+)/(−)Tasten so einstellen,daß der 100%-Weißpegel 0,8 ± 0,05V Gleichspannung aufweist. • R1546 so einstellen,daß der 100%-Weißpegel 0,5 ± 0,05V Gleichspannung aufweist.
7	**Nebenvorspannung: ADJ.IN2 SBS**	• Das NTSC-Farbbalkensignal empfangen. • SBS im ADJ.IN2-Modus einstellen. • Das Oszilloskop zwischen TP3-3 stiften (VG2) und Masse anschließen.	• Den Weiß-zu-Weißpegel der invertierten und nichtinvertierten Wellen auf 1,6 ± 0,05Vs-s einstellen.

Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
8	**R-Nebenvorspannung: ADJ.IN2 RBS**	• Das NTSC-Farbbalkensignal empfangen. • RBS im ADJ.IN2-Modus anwählen. • Das Oszilloskop zwischen TP3-4 stiften (VG2) und Masse anschließen.	• Mit den DAC (+)/(−)Tasten den Weiß-zu-Weißpegel der invertierten und nichtinvertierten Wellen auf 1,1 ± 0,1Vs-s einstellen.
9	**R-Nebenvorspannung: ADJ.IN2 BBS**	• Das NTSC-Farbbalkensignal empfangen (Ja-8ch). • RBS im ADJ.IN2-Modus anwählen. • Das Oszilloskop zwischen TP3-2 stiften (VG2) und Masse anschließen.	• Mit den DAC (+)/(−)Tasten den Weiß-zu-Weißpegel der invertierten und nichtinvertierten Wellen auf 1,9 ± 0,1Vs-s einstellen.
10	**NTSC-Farbton:ADJ.IN1**	• Das NTSC-Farbbalkensignal empfangen. • Den Farbton im ADJ.IN1-Modus anwählen. • Das Oszilloskop zwischen TP2-2 stiften und Masse anschließen.	• Mit den DAC(+)/(−)Tasten die nachfolgend dargestellte Wellenform einstellen. 
11	**Farbsättigung: ADJ.IN1**	• Das NTSC-Farbbalkensignal empfangen. • Das Farbsignal im ADJ.IN1-Modus anwählen. • Das Oszilloskop zwischen TP4-6 stiften und Masse anschließen.	• Mit den DAC (+)/(−)Tasten die nachfolgend dargestellte Wellenform einstellen. 
12	**Chroma-Trap: T402**	• Das PAL-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-4 stiften und Masse anschließen.	• T402 so einstellen, daß der Chromaträger den Minimalwert aufweist.
13	**Chroma-Trap: T401**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-4 stiften und Masse anschließen.	• T401 so einstellen, daß der Chromaträger den Minimalwert aufweist.
14	**SECAM-Glockenfilter: T805**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-6 stiften und Masse anschließen.	• T805 so einstellen, daß RB(1) und RB(2) in der 2H-Periode die gleiche Amplitude aufweisen. Siehe nachfolgende Abbildung. 

Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
15	**SECAM ID:T805**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-5 stiften und Masse anschließen.	• T804 so einstellen,daß der Gleichstrompegel dem Maximalwert entspricht.
16	**SECAM B-Y:T801**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-2 stiften und Masse anschließen.	• T801 so einstellen,daß der Versatz Null entspricht. Siehe untere Abbildung.  Der Versatz muß Null entsprechen.
17	**SECAM R-Y:T802**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-1 stiften und Masse anschließen.	• T802 so einstellen,daß der Versatz Null entspricht. Siehe untere Abbildung.  Der Versatz muß Null entsprechen.
18	**PAL 1H-Verzögerung: phase;T803, Verstärkung; R859**	• Das PAL-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-2 stiften und Masse anschließen.	• R859 und T805 so einstellen,daß die schraffierten Abschnitte sich wie in der nachfolgenden Abbildung verändern.  Nach der Einstellung
19	**Scan-Konversions-oszillation: L4101**	• Einen Kurzschluß zwischen TP4101 und Masse(GND)verursachen. • Den Frequenzmesser zwischen TP4102 und Masse anschließen.	• L4101 so einstellen,daß der Frequenzmesser 15,625 ± 0,01kHz anzeigt.

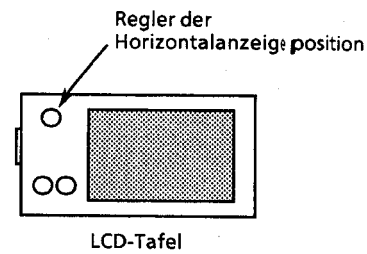
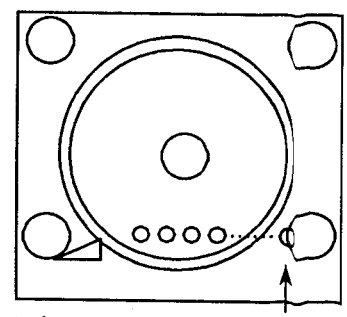
Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
20	**PAL Y-Pegel: R4162**	• Das PAL-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP2-4 stiften und Masse anschließen.	• R4162 so einstellen,daß der Unterschied zwischen der Schwarzabhebung und dem Weißpegel 1,0 ± 0,05/-0Vs-s beträgt.
21	**Gegenvorspannung (Feineinstellung): R1479**	• Das NTSC-Monoskopmuster-Signal empfangen.	• R1479 auf den schärfsten Kontrast einstellen.
22	**Weißbalance (Feineinstellung): R1667(B), R1673(R)**	• Das NTSC-Monoskopmuster-Signal empfangen.	• Den Bildschirm beobachten und die Weißbalance überprüfen. Wenn diese nicht den Spezifikationen entspricht, Feineinstellung von R1667 und R1673 vornehmen.Für die endgültige Abstimmung das Ja-4ch-Signal empfangen und die Hautfarbe prüfen.
23	**NTSC (Horizontal-anzeigeposition)**	• Das NTSC-Monoskopmuster-Signal empfangen.	• Den Regler der Horizontal-anzeigeposition auf der LCD-Tafel so verstellen, daß das Bild mittig ausgerichtet ist. 
24	**PAL (Horizontal-anzeigeposition)**	• Das PAL-Monoskopmuster-Signal empfangen.	• R1605 so einstellen,daß das Bild mittig ausgerichtet ist.
25	**Zeichenposition: T2001**	• Das NTSC-Monoskopmuster-Signal empfangen. • Den S-UP-Schalter gedrückt halten,dann die Einstellspule für die Zeichenposition überprüfen (T2001).	

TABELLE FÜR STÖRUNGSSUCHE

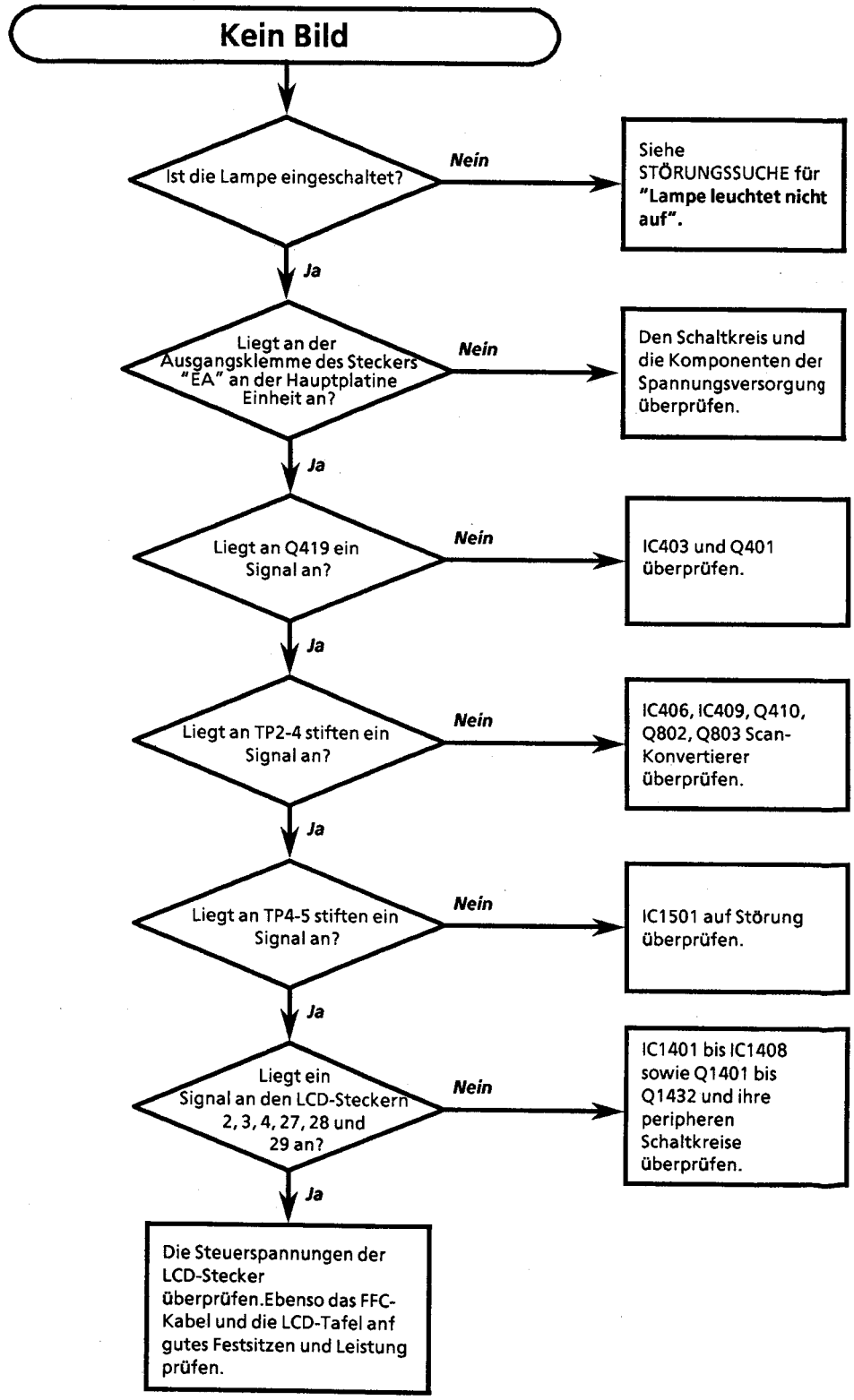
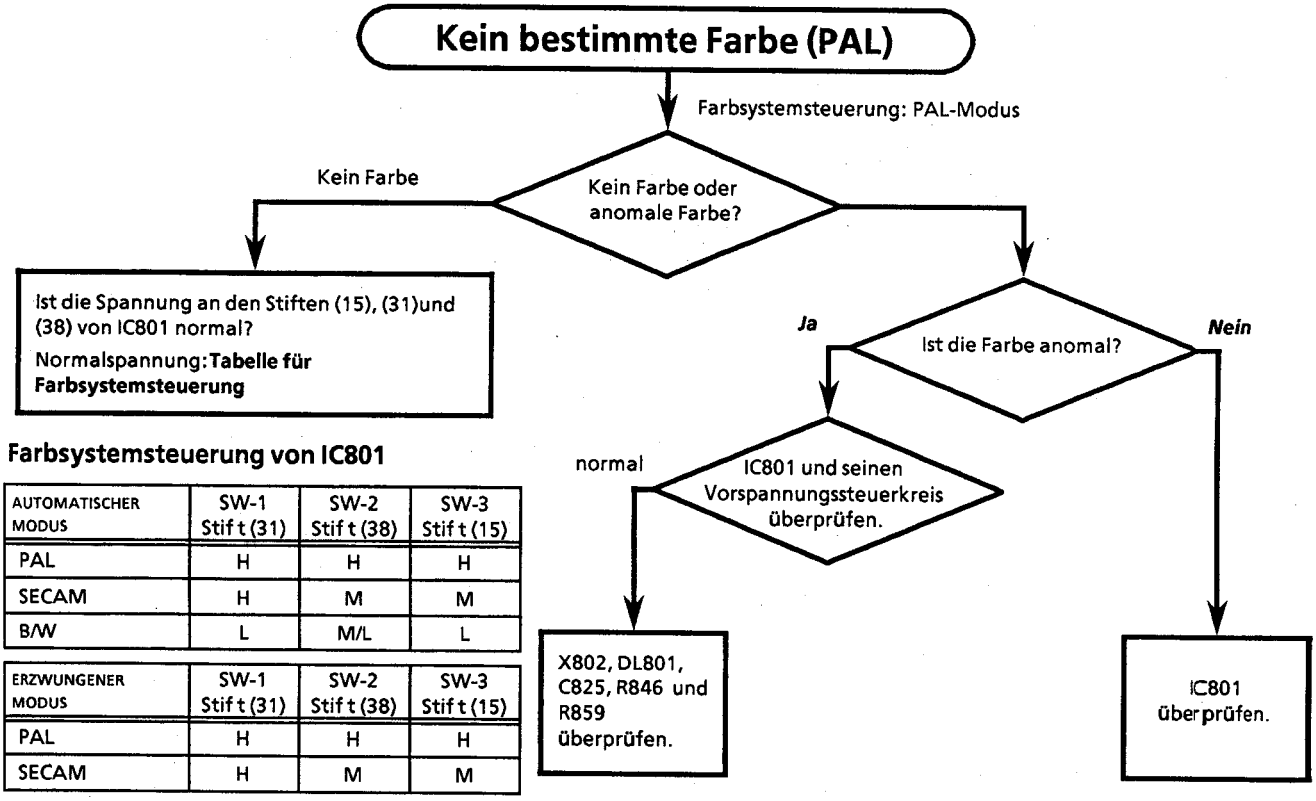

Kein Bild
Ist die Lampe eingeschaltet?
Nein
Siehe STÖRUNGSSUCHE für "Lampe leuchtet nicht auf".
Ja
Liegt an der Ausgangsklemme des Steckers "EA" an der Hauptplatine Einheit an?
Nein
Den Schaltkreis und die Komponenten der Spannungsversorgung überprüfen.
Ja
Liegt an Q419 ein Signal an?
Nein
IC403 und Q401 überprüfen.
Ja
Liegt an TP2-4 stiften ein Signal an?
Nein
IC406, IC409, Q410, Q802, Q803 Scan-Konvertierer überprüfen.
Ja
Liegt an TP4-5 stiften ein Signal an?
Nein
IC1501 auf Störung überprüfen.
Ja
Liegt ein Signal an den LCD-Steckern 2, 3, 4, 27, 28 und 29 an?
Nein
IC1401 bis IC1408 sowie Q1401 bis Q1432 und ihre peripheren Schaltkreise überprüfen.
Ja
Die Steuerspannungen der LCD-Stecker überprüfen.Ebenso das FFC-Kabel und die LCD-Tafel anf gutes Festsitzen und Leistung prüfen.

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)



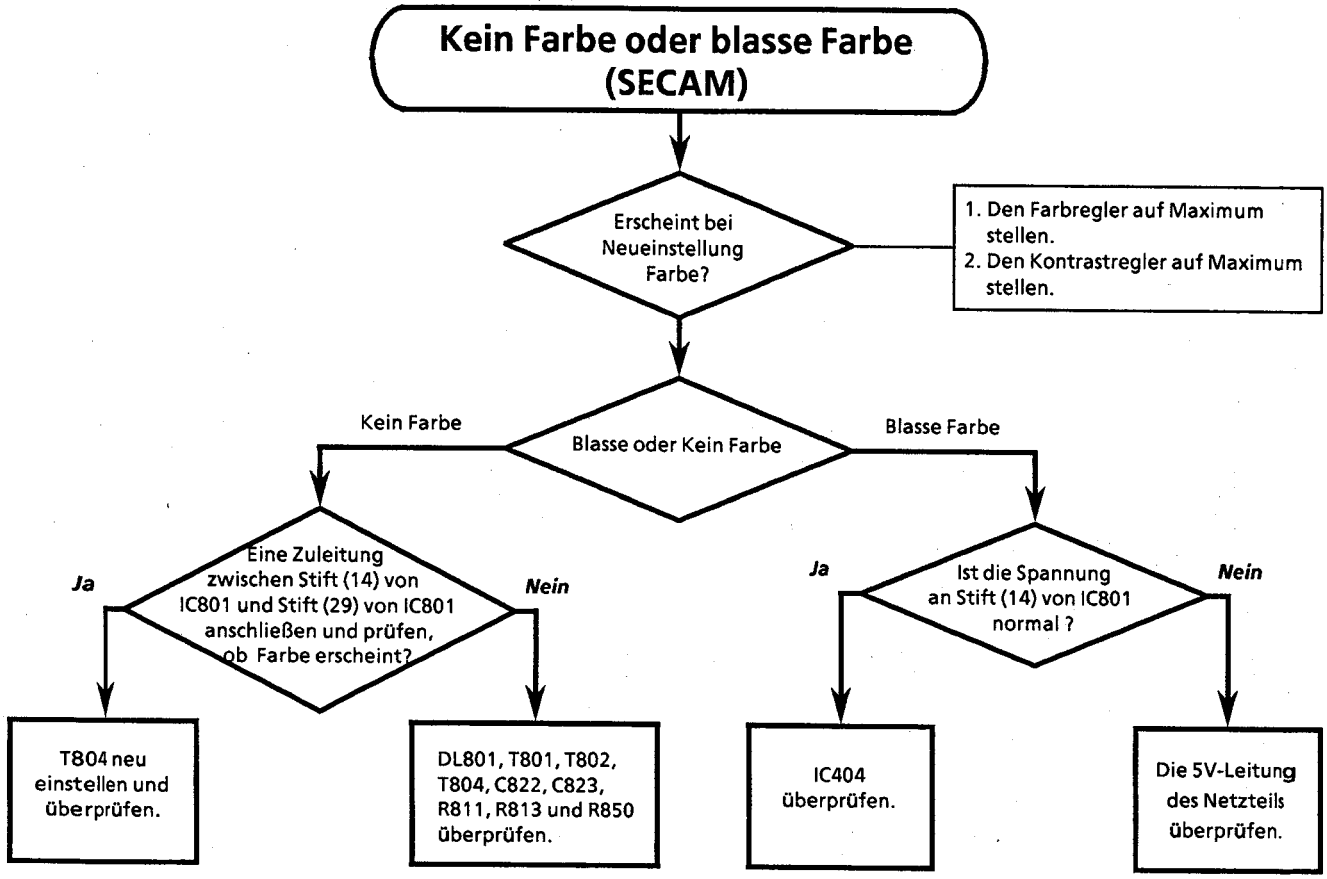
Farbsystemsteuerung von IC801

AUTOMATISCHER MODUS	SW-1 Stift (31)	SW-2 Stift (38)	SW-3 Stift (15)
PAL	H	H	H
SECAM	H	M	M
B/W	L	M/L	L

ERZWUNGENER MODUS	SW-1 Stift (31)	SW-2 Stift (38)	SW-3 Stift (15)
PAL	H	H	H
SECAM	H	M	M

H: über 3V M: 1,5V L: 0V

TABELLE FÜR STÖRUNGSSUCHE(fortgesetzt)


Kein Farbe oder blasse Farbe (SECAM)
Erscheint bei Neueinstellung Farbe?
1. Den Farbregler auf Maximum stellen.
2. Den Kontrastregler auf Maximum stellen.
Blasse oder Kein Farbe
Kein Farbe
Blasse Farbe
Eine Zuleitung zwischen Stift (14) von IC801 und Stift (29) von IC801 anschließen und prüfen, ob Farbe erscheint?
Ja
Nein
T804 neu einstellen und überprüfen.
DL801, T801, T802, T804, C822, C823, R811, R813 und R850 überprüfen.
Ist die Spannung an Stift (14) von IC801 normal ?
Ja
Nein
IC404 überprüfen.
Die 5V-Leitung des Netzteils überprüfen.

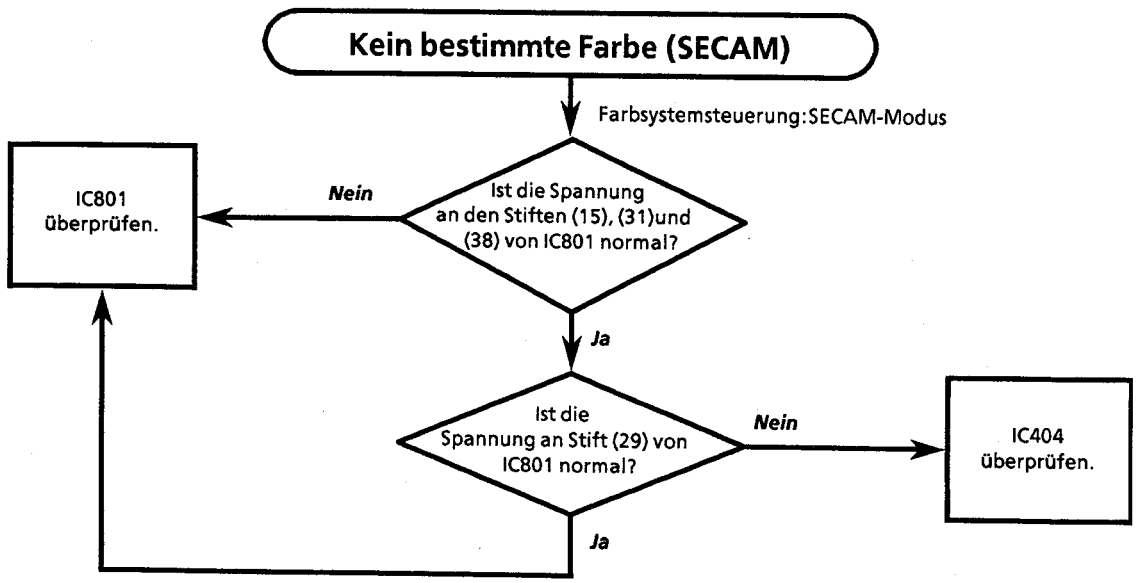


TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

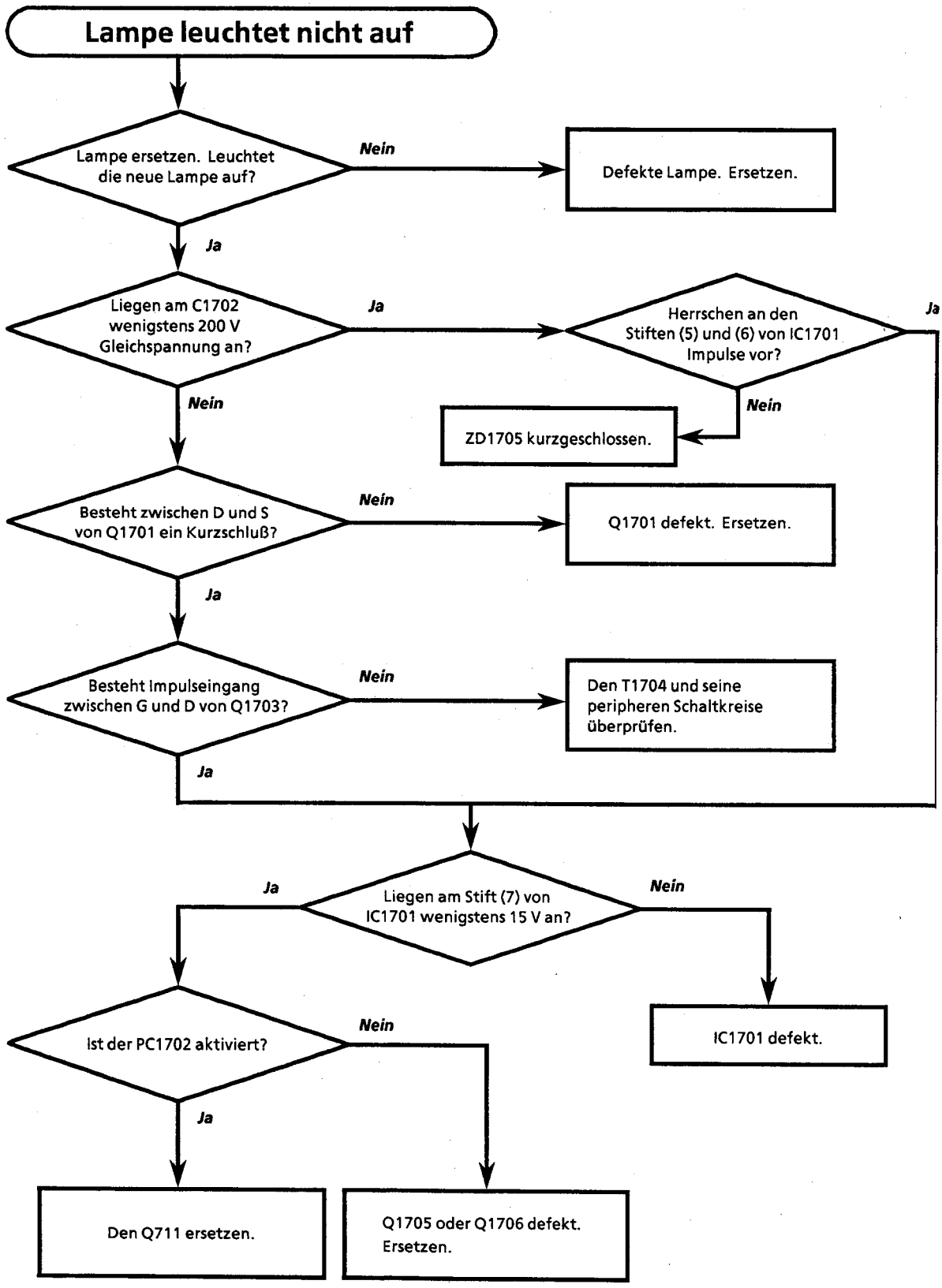
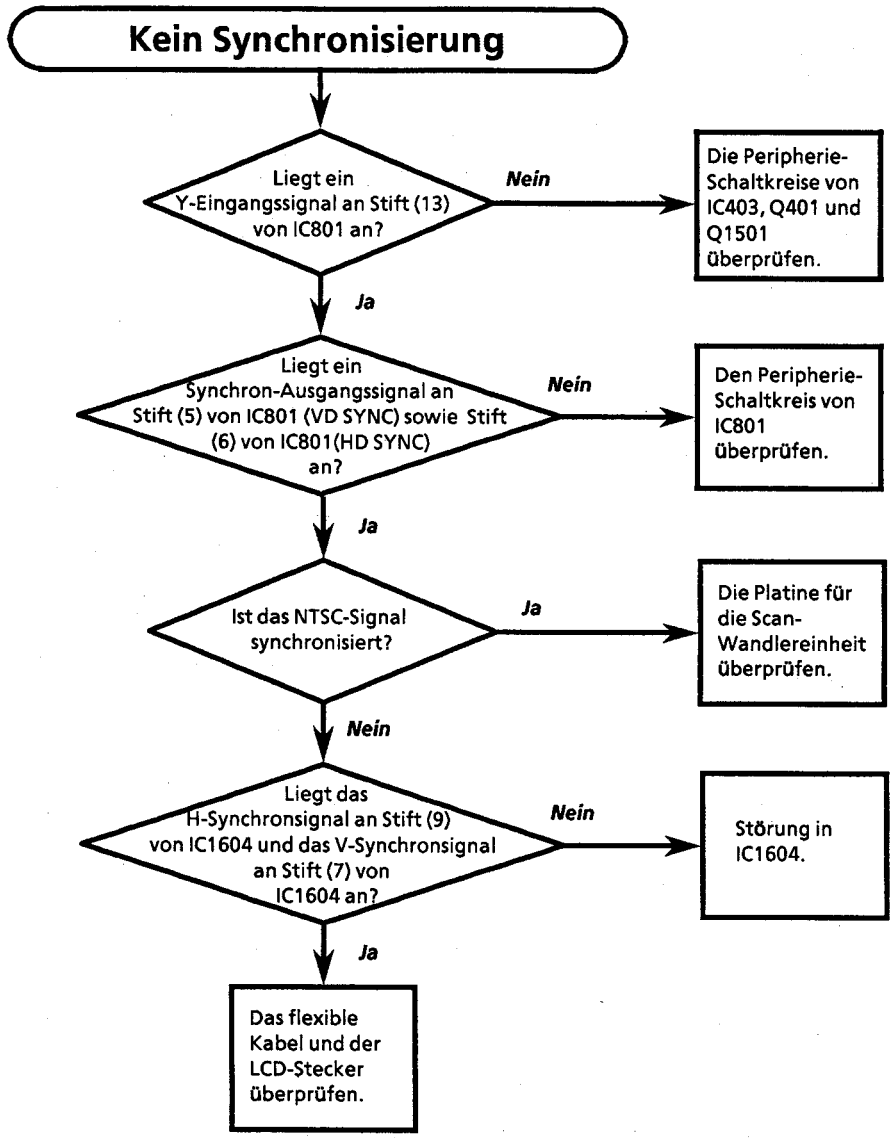
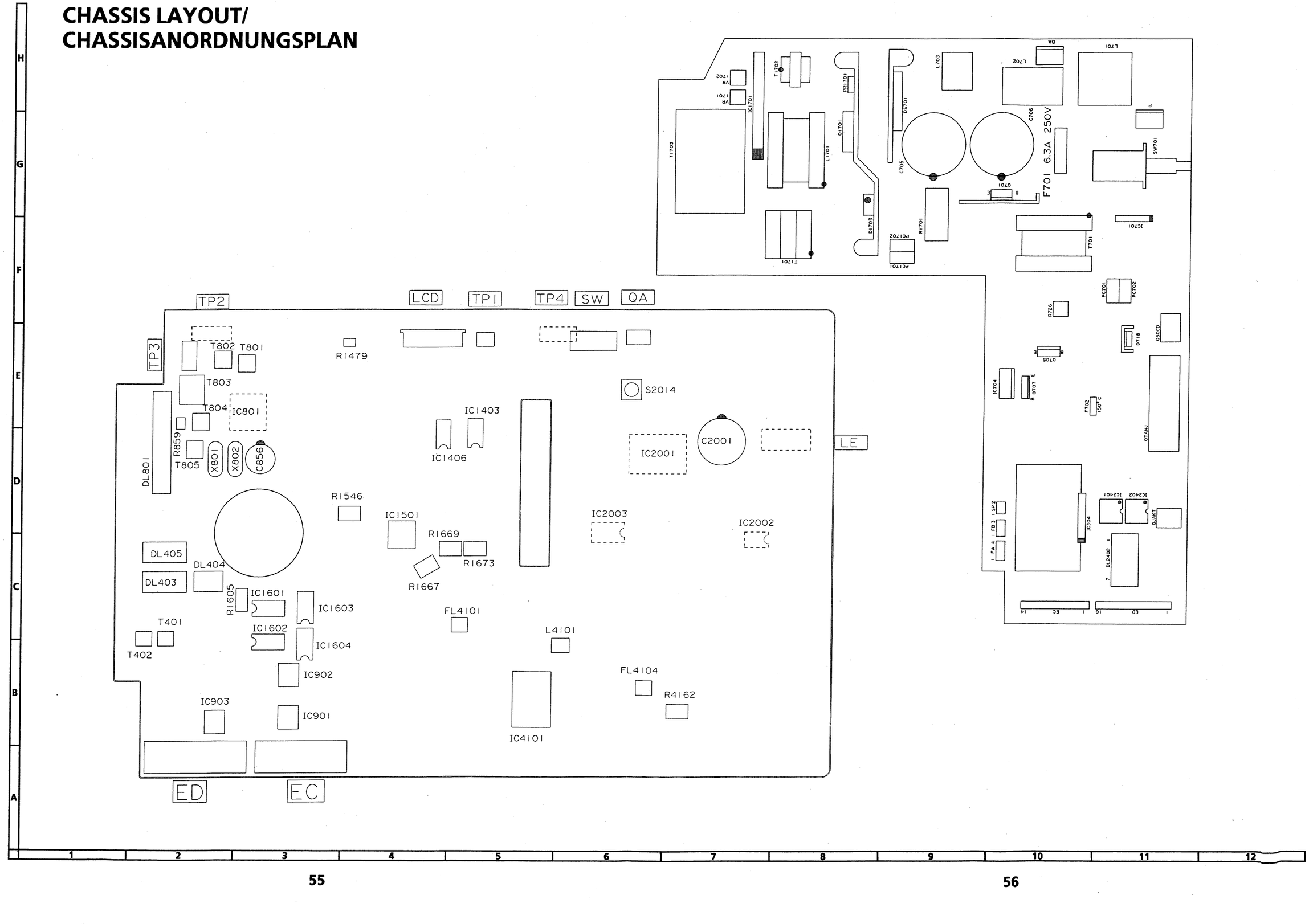


TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

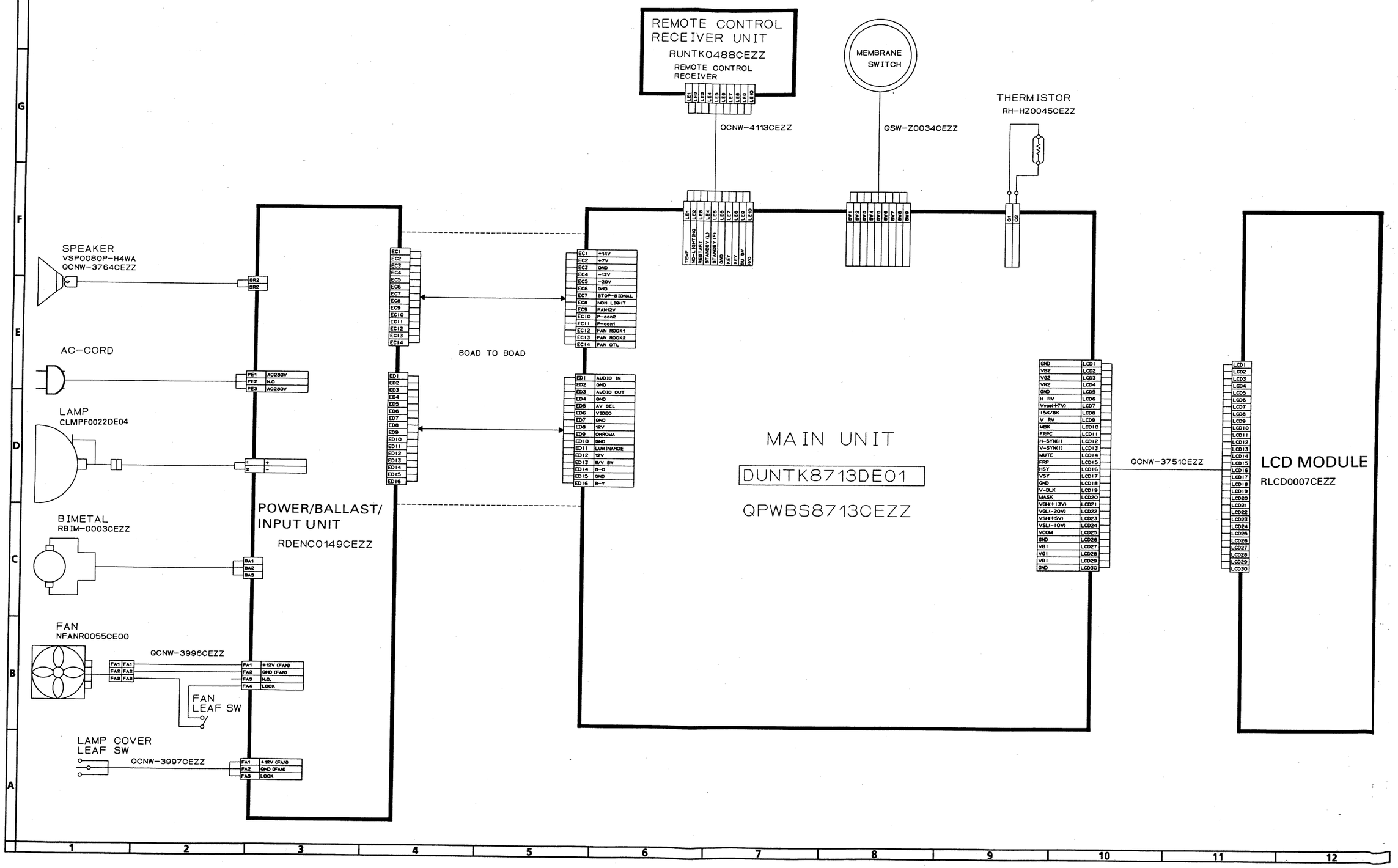

Kein Synchronisierung
Liegt ein Y-Eingangssignal an Stift (13) von IC801 an?
Nein
Die Peripherie-Schaltkreise von IC403, Q401 und Q1501 überprüfen.
Ja
Liegt ein Synchron-Ausgangssignal an Stift (5) von IC801 (VD SYNC) sowie Stift (6) von IC801(HD SYNC) an?
Nein
Den Peripherie-Schaltkreis von IC801 überprüfen.
Ja
Ist das NTSC-Signal synchronisiert?
Ja
Die Platine für die Scan-Wandlereinheit überprüfen.
Nein
Liegt das H-Synchronsignal an Stift (9) von IC1604 und das V-Synchronsignal an Stift (7) von IC1604 an?
Nein
Störung in IC1604.
Ja
Das flexible Kabel und der LCD-Stecker überprüfen.

CHASSIS LAYOUT/
CHASSISANORDNUNGSPLAN



55 56

OVERALL WIRING DIAGRAM/ GESAMTSCHALTPLAN



DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. Voltages at test points are measured at the supply voltage of AC 220V. Signals are fed by a colour bar signal generator for servicing purpose and the above voltages are measured with a 20-kohm/V tester.

WAVEFORM MEASUREMENT CONDITION:

1. Waveforms at test points are observed at the supply voltage of AC 220V. Signals are fed by a colour bar signal generator for servicing purpose.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted. (K = kΩ = 1000 Ω, M = MΩ).
2. All resistors are ± 10%, unless otherwise noted. (J = ± 5%)
3. All resistors are 1/8W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.
   Ⓒ: Solid Ⓦ: Cement
   Ⓢ: Oxide Film Ⓣ: Special
   Ⓝ: Metal Coating

CAPACITOR

1. All capacitors are μF, unless otherwise noted. (P = pF = μμF).
2. All capacitios are 50V, unless otherwise noted.
3. All capacitios are Ceramic type, unless otherwise noted.
   (ML): Mylar (TA): Tantalum
   (PF): Polypro Film (ST): Styrol

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTE:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACEING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" (▒▒▒▒▒) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

BESCHREIBUNG DES SCHEMATISCHEN SCHALTPLANS

SPANNUNGSMESSUNGEN

1. Spannungen an den Prüfpunkten werden bei einer Netzspannung von 220V gemessen.Signale werden für die Wartung mit einem Farbbalken-Signalgenerator zugeführt,und Spannungen werden mit einem Meßinstrument (20k ohm/V)ermittelt.

SIGNALFORMMESSUNGEN

1. Die Wellenformen an den Prüfpunkten werden bei einer Netzspannung von 220V verfolgt.Signale werden für die Wartung mit einem Farbbalken-Signalgenerator zugeführt.

BEZEICHNUNG DES WIDERSTANDS UND KONDENSATORS WIDERSTAND

1. Wie Widerstandseinheit "Ω" wird weggelassen.(K = kΩ = 1000Ω, M = MΩ)
2. Alle Widerstände haben ± 10%,sofern nicht anders angegeben.(J = ± 5%)
3. Alle Widerstände haben 1/8W,sofern nicht anders angegeben.
4. Alle Widerstände sind Kohletyp,sofern nicht anders angegeben.
   Ⓒ: Fest Ⓦ: Zement
   Ⓢ: Oxidfilm Ⓣ: Spezial
   Ⓝ: Metallüberzug

KONDENSATOR

1. Die Kapazitätseinheit ist μF,sofern nicht anders angegeben. (P = pF = μμF).
2. Alle Widerstände haben 50V,sofern nicht anders angegeben.
3. Alle Widerstände sind Keramiktyp,sofern nicht anders.angegeben.
   (ML): Mylar (TA): Tantal
   (PF): Polyprofilm (ST): Styrol

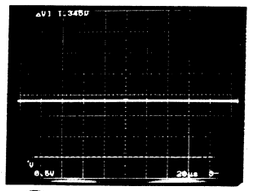
ACHTUNG:
Bei diesem Schaltplan handelt es sich um die ursprüngliche Version.Es können daher geringe Unterschiede zu Ihrem Schaltplan bestehen.

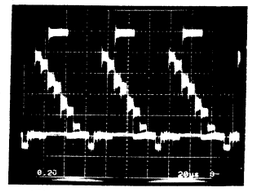
SICHERHEITSANMERKUNGEN:

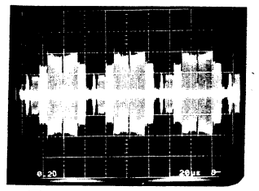
1. *VOR DEM AUSWECHSELN VON BAUTEILEN MUSS UNBEDINGT DER NETZSTECKER AUS DER NETZSTECKDOSE GEZOGEN WERDEN.*
2. *DIE WÄRMEABLEITER DER HALBLEITER SOLLTEN BEIM BETRIEB ALS MÖGLICHE URSACHE GEFÄHRLICHER ELEKTRISCHER SCHLÄGE BETRACHTET WERDEN.*

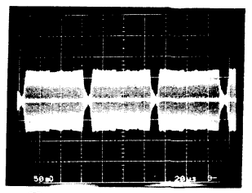
WICHTIGE SICHERHEITSHINWEISE:

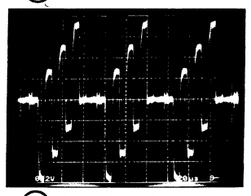
DIE MIT "⚠"(▒▒▒▒▒) MARKIERTEN TEILE SIND FÜR DIE AUFRECHTERHALTUNG DER SICHERHEIT BESONDERS WICHTIG.BEIM AUSWECHSELN DIESER BAUTEILE MÜSSEN IMMER DIE VORGESCHRIEBENEN TEILE VERWENDET WERDEN,UM DIE SICHERHEIT SOWIE DIE LEISTUNG DES GERÄTES AUFRECHTZUERHALTEN.

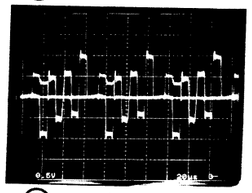

① 0.5V/div, 20μsec/div


② 0.2V/div, 20μsec/div

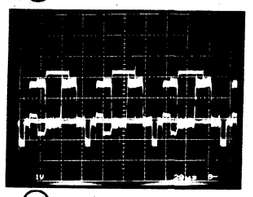

③ 0.2V/div, 20μsec/div

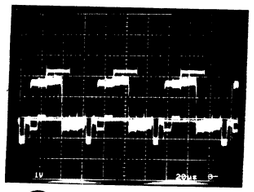

④ 50mV/div, 20μsec/div

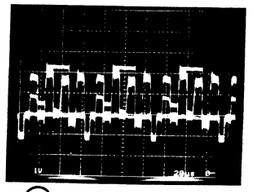

⑤ 0.2V/div, 20μsec/div (SECAM)

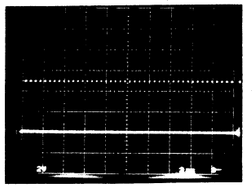

⑤ 0.5V/div, 20μsec/div (NTSC)

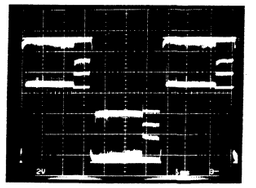
⑥ 0.2V/div, 20μsec/div

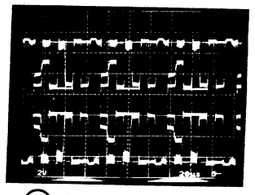

⑦ 1V/div, 20μsec/div

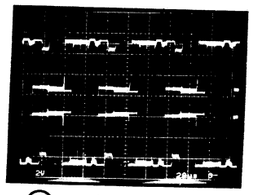

⑧ 1V/div, 20μsec/div

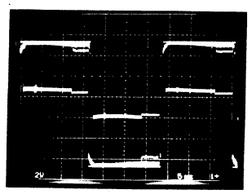

⑨ 1V/div, 20μsec/div

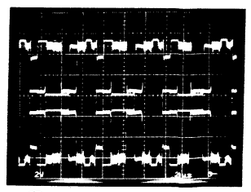

⑩ 2V/div, 2m sec/div


⑪ 2V/div, 20μsec/div (H-Size)

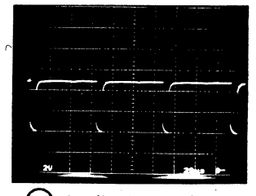

⑪ 2V/div, 5m sec/div (V-Size)

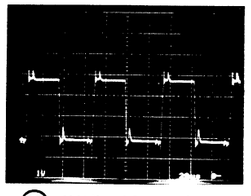

⑫ 2V/div, 20μsec/div (H-Sync)


⑫ 2V/div, 20μsec/div (V-Sync)

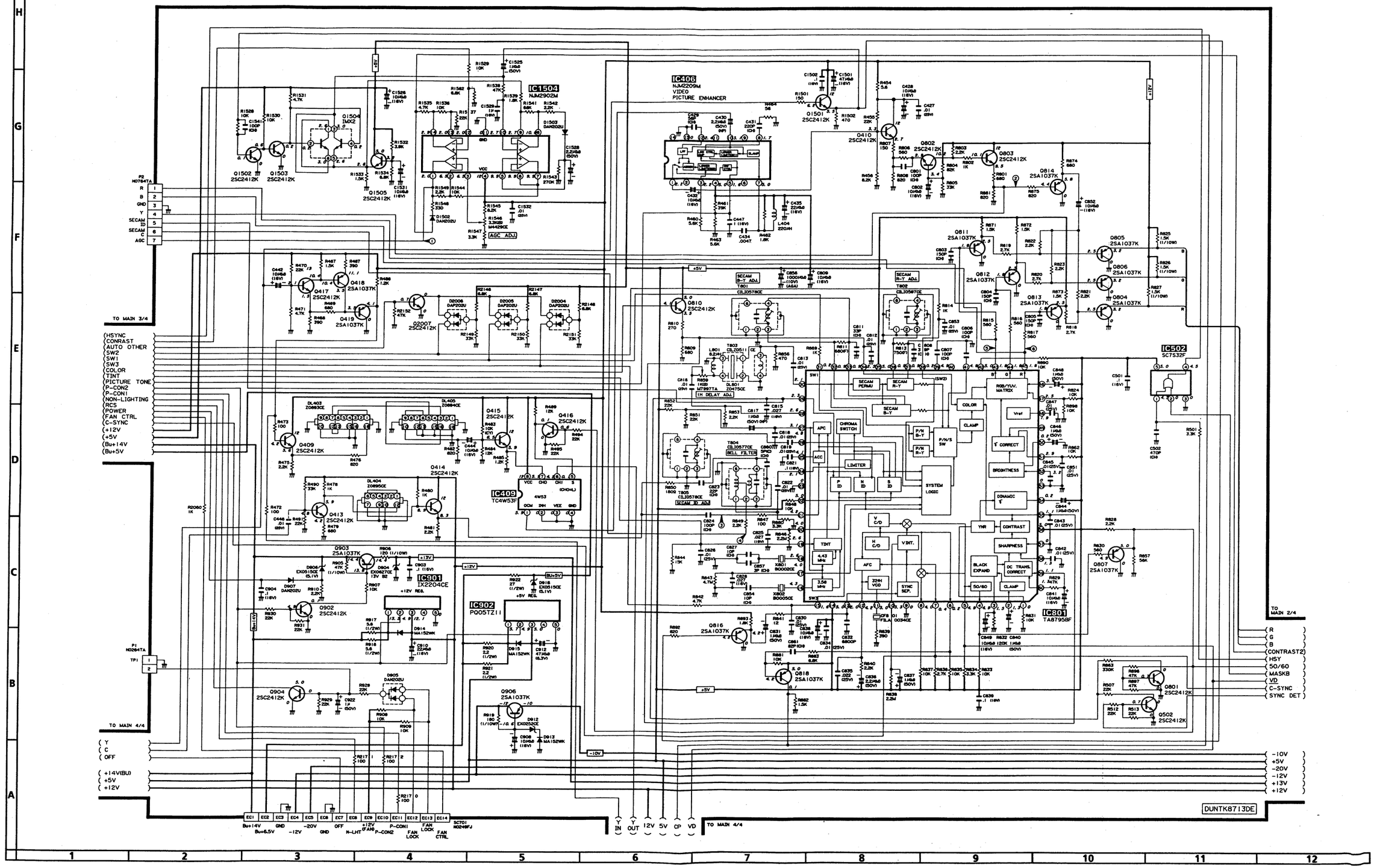

⑬ 2V/div, 20μsec/div (H-Sync)

⑬ 2V/div, 20μsec/div (V-Sync)

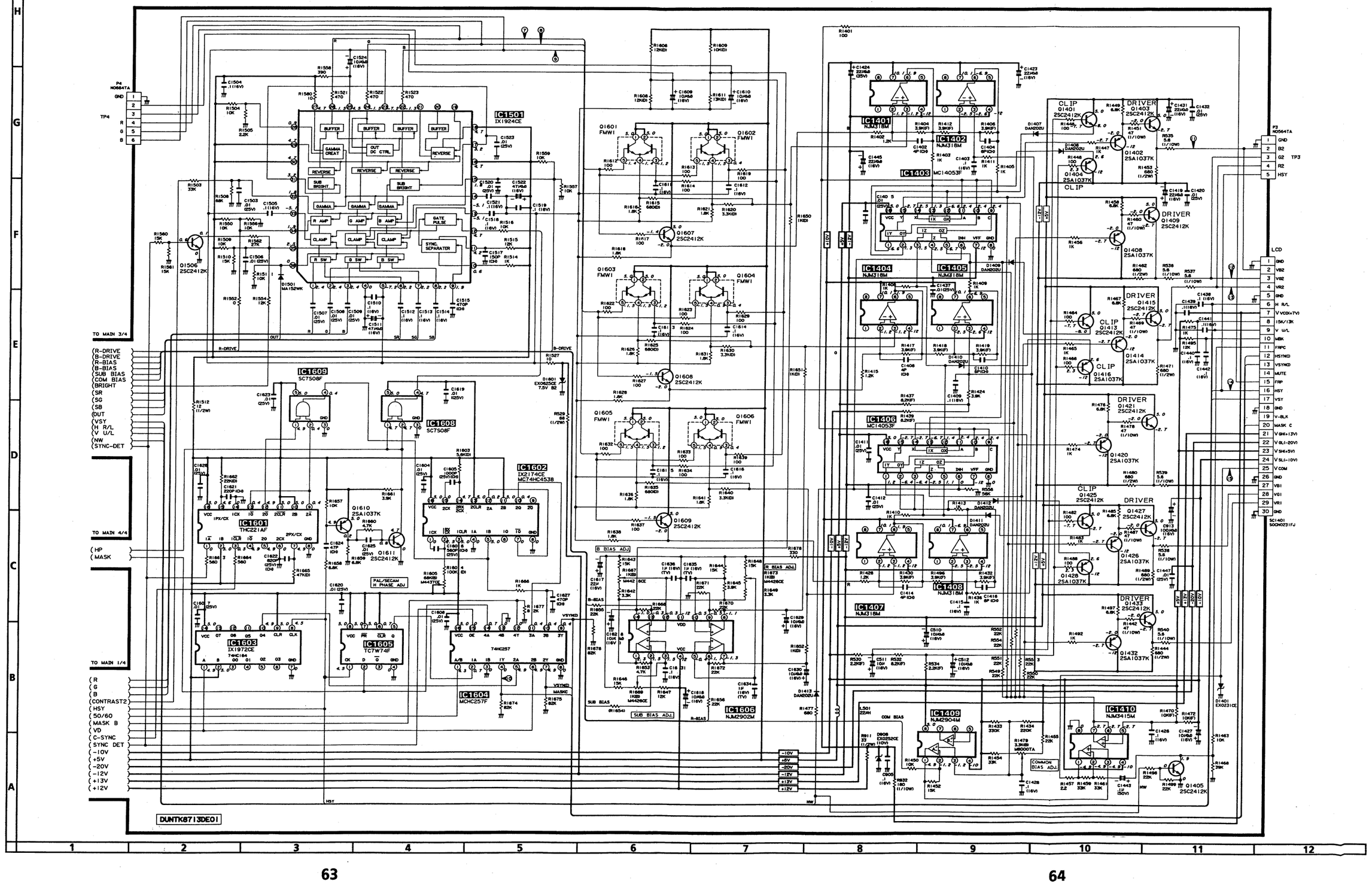

⑭ 2V/div, 20μsec/div


⑮ 1V/div, 20μsec/div

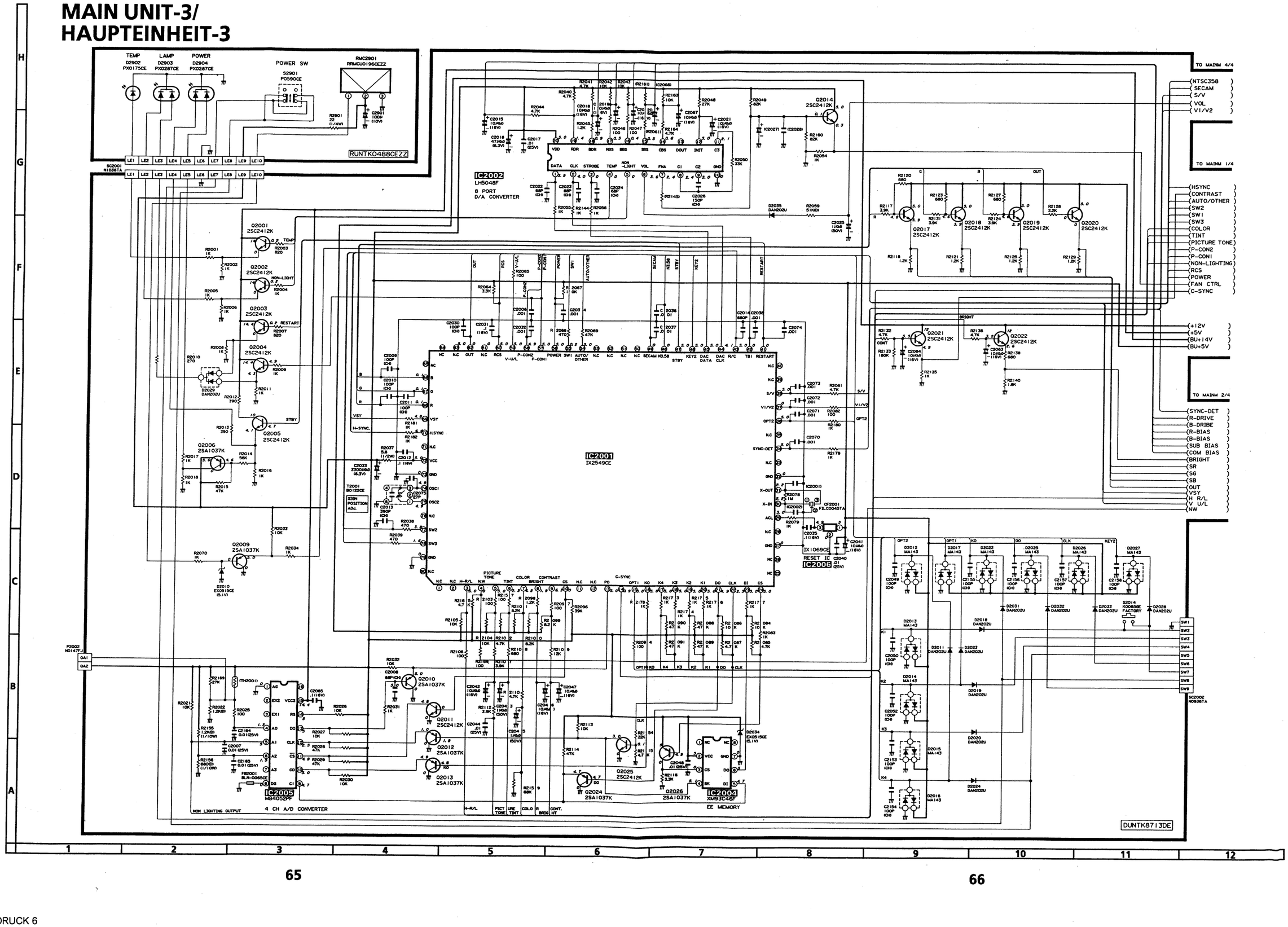
MAIN UNIT-1/
HAUPTEINHEIT-1



MAIN UNIT-2/
HAUPTEINHEIT-2

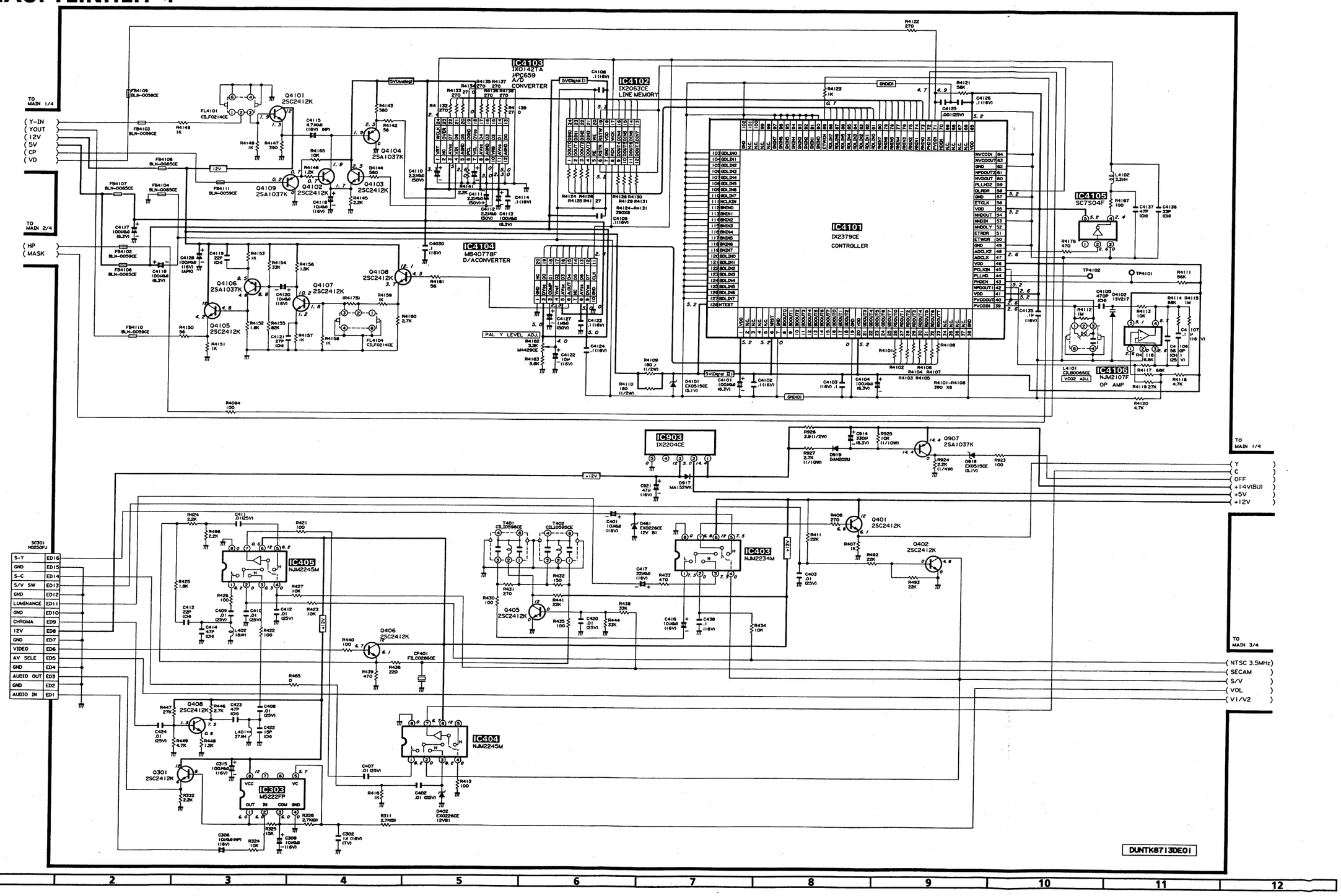


MAIN UNIT-3/ HAUPTEINHEIT-3



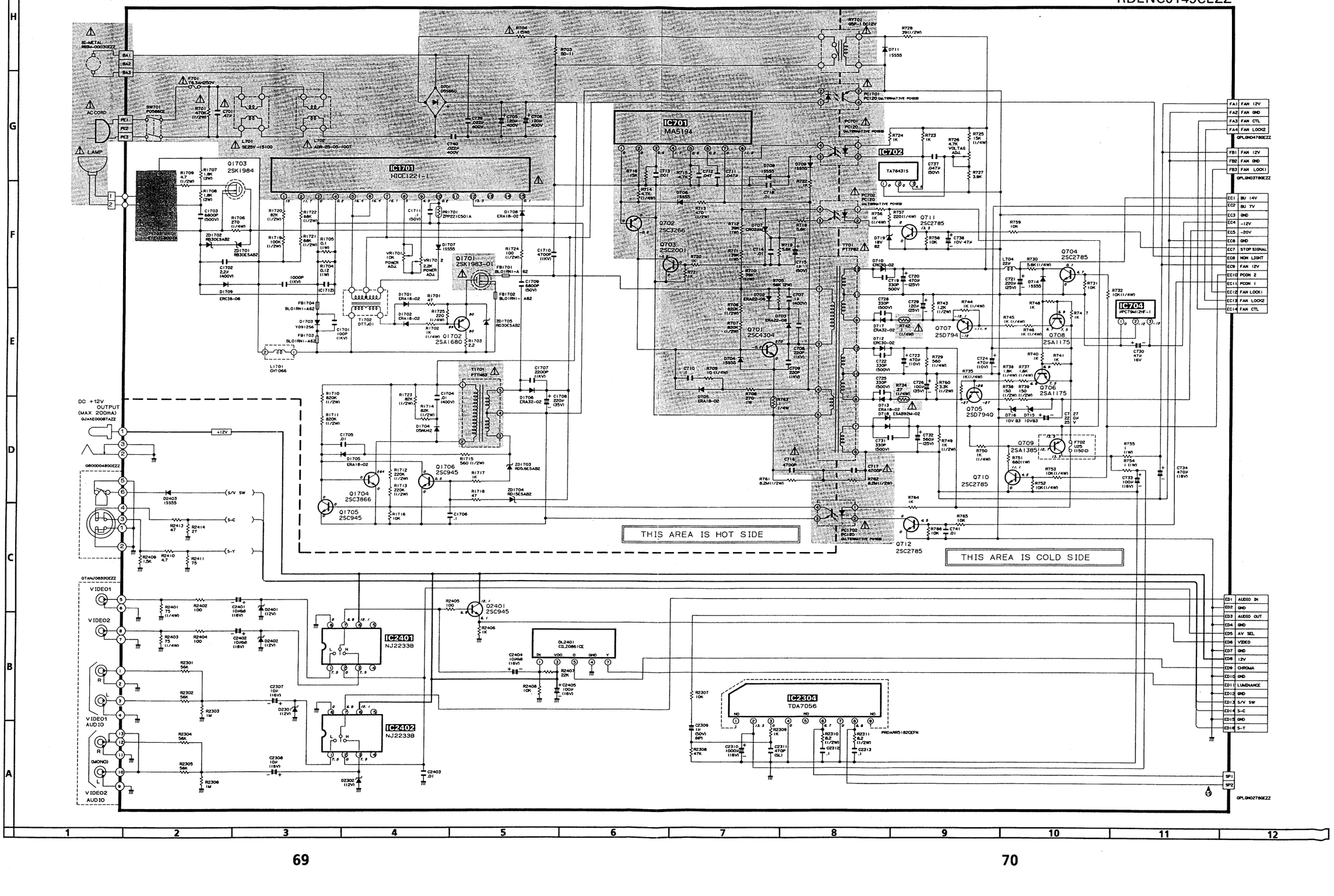
65 66

MAIN UNIT-4/
HAUPTEINHEIT-4

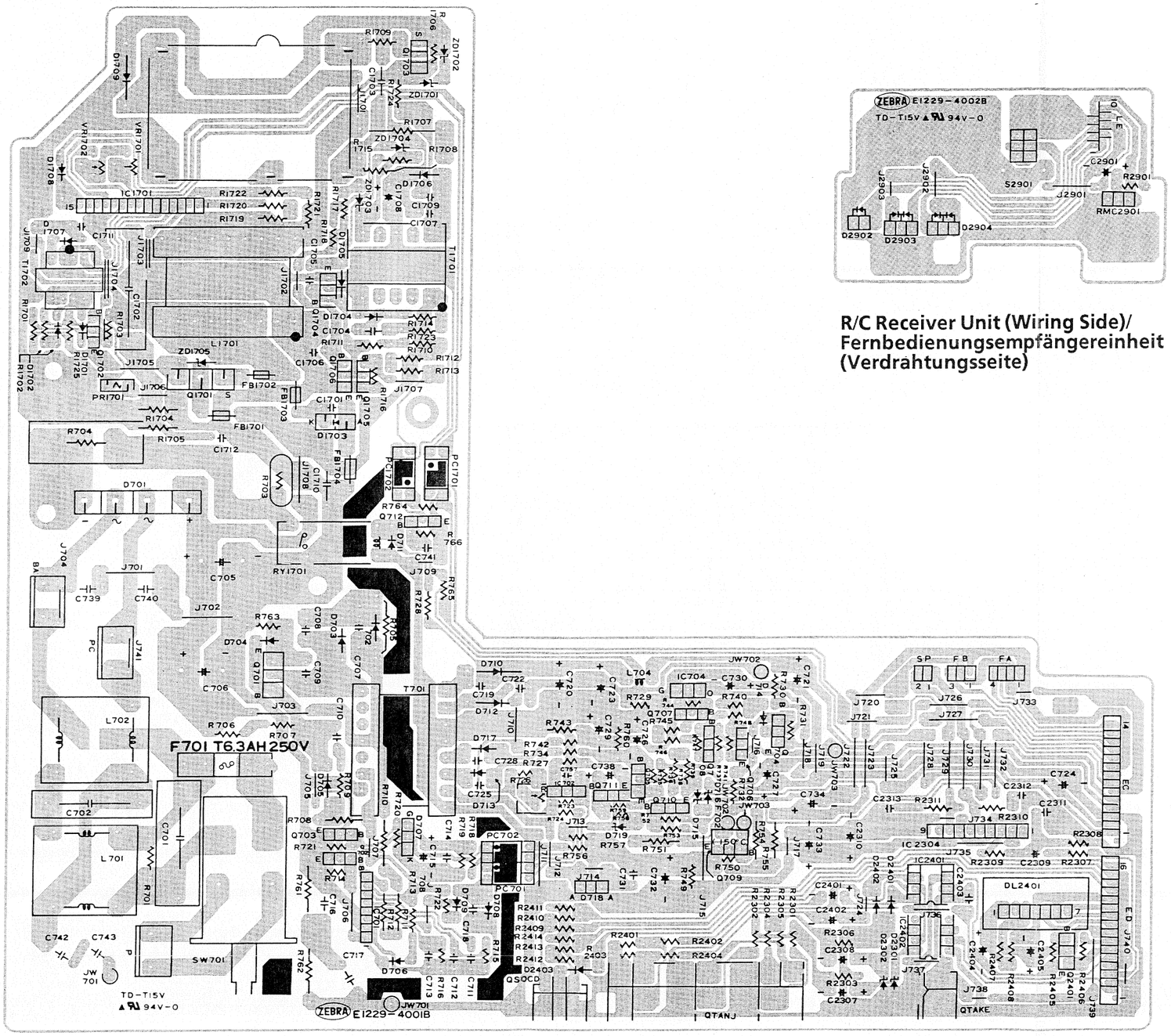


POWER/BALLAST/INPUT UNIT/
NETZ/BALLAST/EINGANGS-EINHEIT

RDENC0149CEZZ

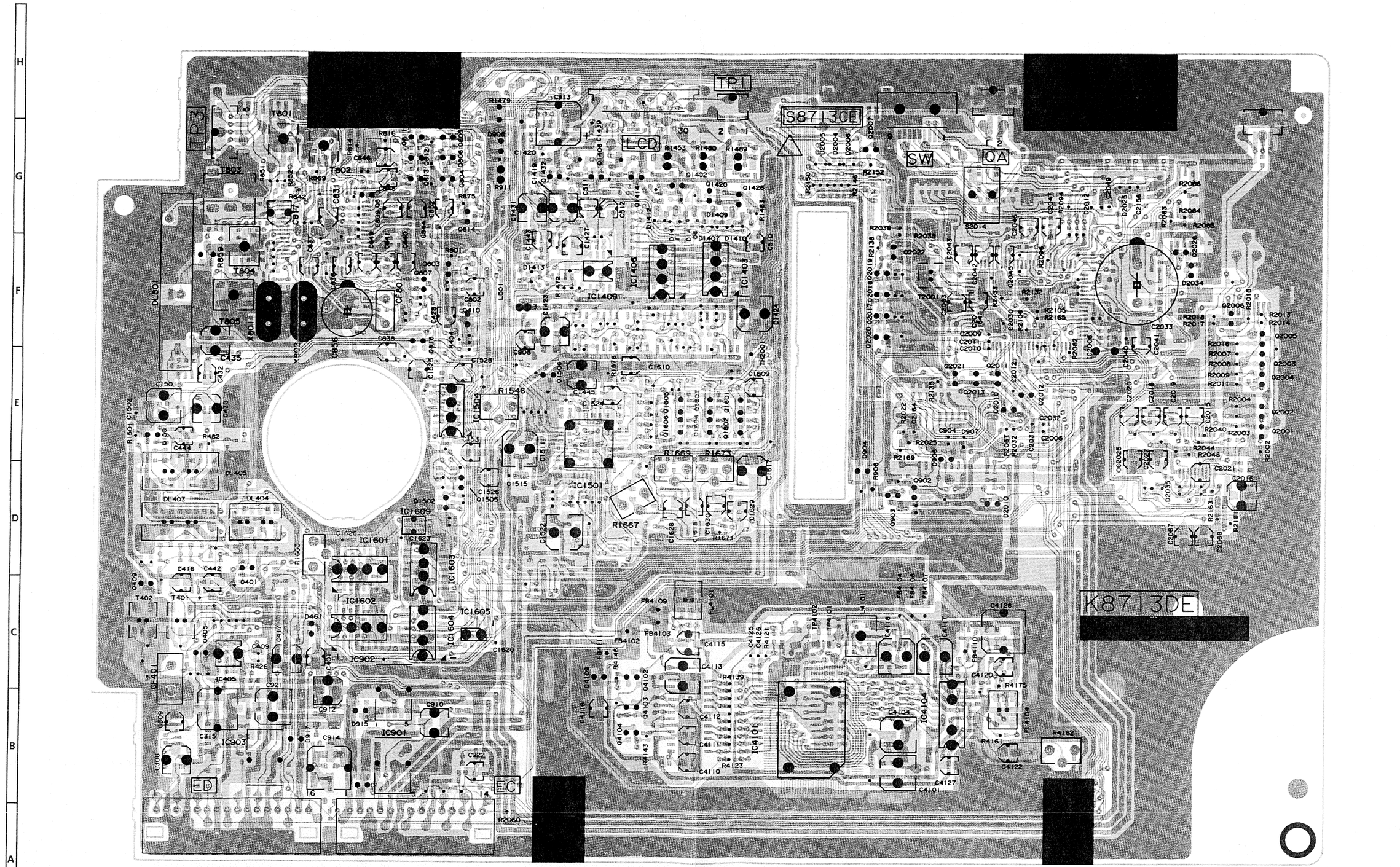


PRINTED WIRING BOARD ASSEMBLIES/ PLATINENEINHEITEN

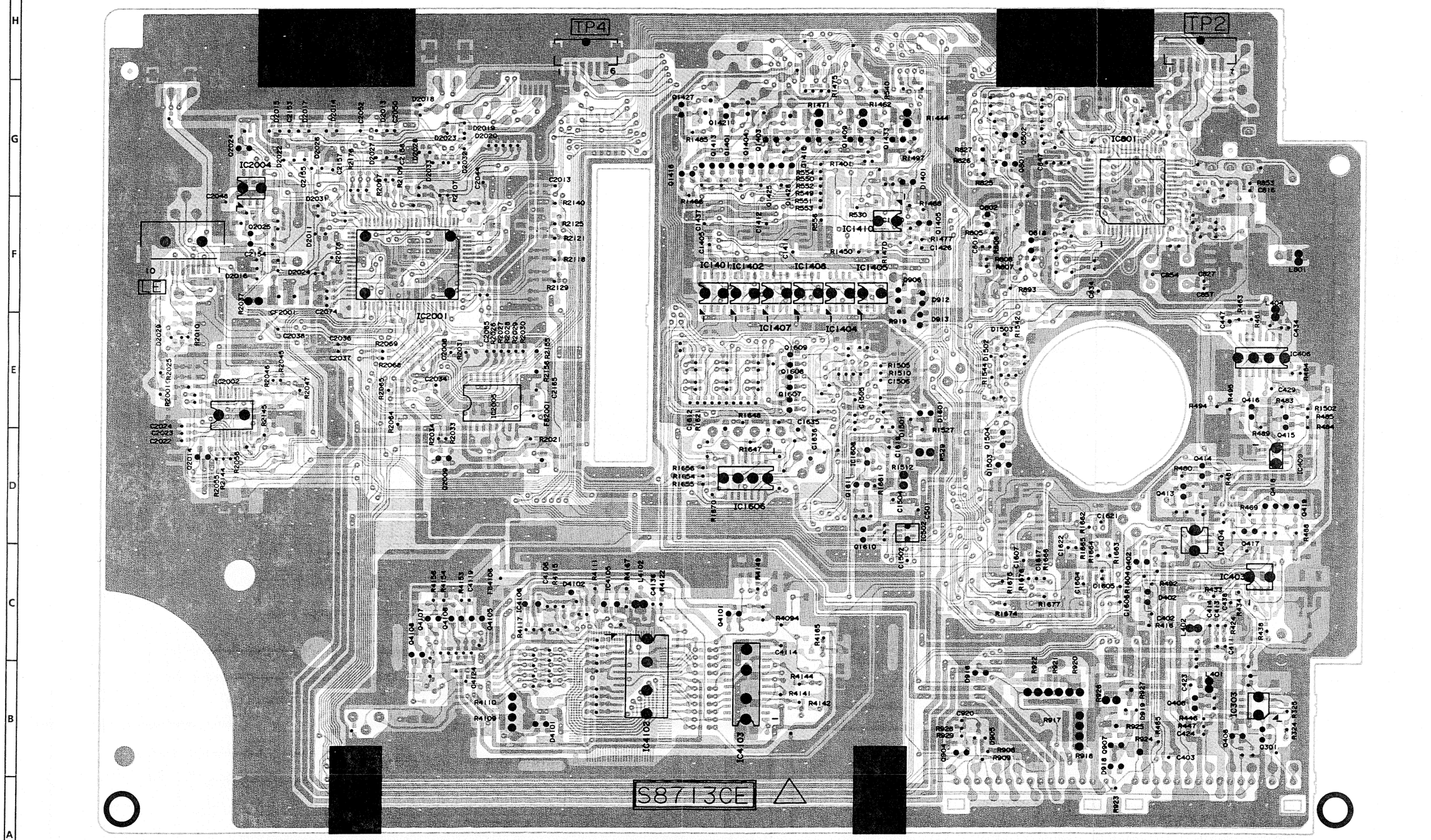


Power/Ballst/Input Unit (Wiring Side)/ Netz/Ballast/Eingangseinheit (Verdrahtungsseite)

R/C Receiver Unit (Wiring Side)/ Fernbedienungsempfängereinheit (Verdrahtungsseite)

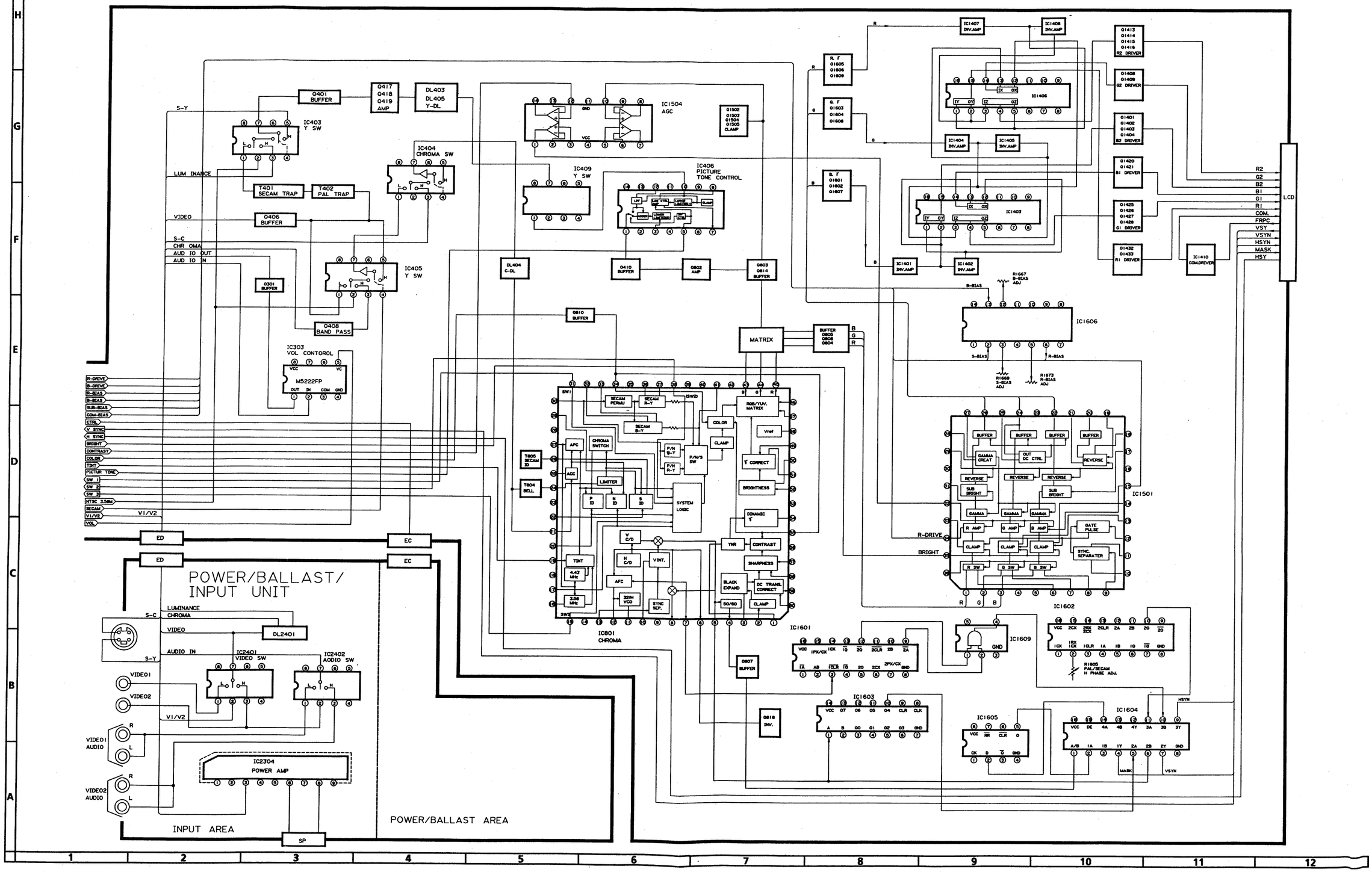


Main Unit (Component Side)/
Haupteinheit (Komponentenseite)



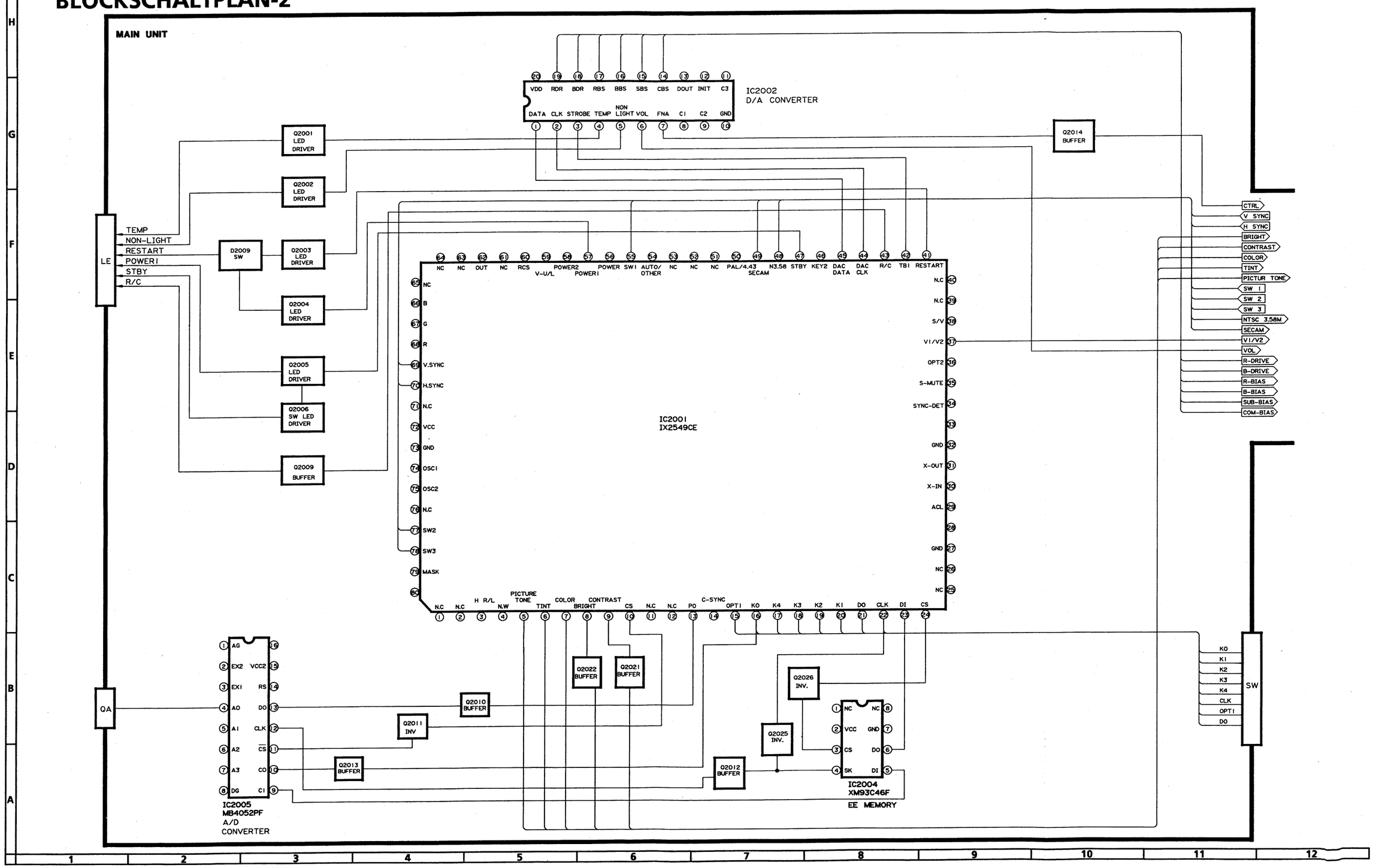
Main Unit (Wiring Side)/
Haupteinheit (Verdrahtungsseite)

BLOCK DIAGRAM-1/ BLOCKSCHALTPLAN-1



77 78

BLOCK DIAGRAM-2/ BLOCKSCHALTPLAN-2



PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK ★: SPARE PARTS-DELIVERY SECTION.

ERSATZTEILLISTE

AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenshaften sind in den Ersatzteil durch "⚠" gekenn-zeichnet. Der Gebrauch von Ersatzteilen, die nicht deselben Sicherheits-eigenschaften haben wie die vom Hersteller empfohlenen ud in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzeinschlägen, Bränden und anderen Gefahren werden.

"WIE MAN ERSATSTEILE BESTELLT"

Damit Ihre Bestellung promt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

1. MODELL NR.
2. REF. NR.
3. ERSATZTEIL NR.
4. BESCHREIBUNG
5. KODE
6. QUANTITÄT

MARKIERUNG ★: ERSATZTEILE-LIEFERUNG

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES
(*NOT REPLACEMENT ITEM*)

	DUNTK8713DE01	–	Main Unit	—
	RUNTK0488CEZZ	–	R/C Receiver Unit	—
	RDENC0149CEZZ	–	Power/Ballast/Input Unit	—

—— End of P.W.B. ASSEMBLIES ——

ASSEMBLY UNIT

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

	RLCDP0007CEZZ	J	LCD Module Unit	DA

—— End of ASSEMBLY UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8713DE01
MAIN UNIT

INTEGRATED CIRCUITS

IC303	VHiM5222FP/-1	J	Volume Control	AG
IC403	VHiNJM2234M-1	J	Y Switch	AF
IC404	VHiNJM2245M-1	J	Chroma Switch	AF
IC405	VHiNJM2245M-1	J	Y Switch	AF
IC406	VHiNJM2209M-1	J	Picture Tone Control	AG
IC409	VHiTC4W53F/-1	J	Y Switch	AE
IC502	VHiSC7S32F/-1	J		AC
IC801	VHiTA8795BF-1	J	Chroma	AZ
IC901	RH-iX2204CEZZ	J	PQ12TZ11	AG
IC902	VHiPQ05TZ11-1	J		AH
IC903	RH-iX2204CEZZ	J	PQ12TZ11	AG
IC1401	VHiNJM318M/-1	J	Inv. Amp.	AG
IC1402	VHiNJM318M/-1	J	Inv. Amp.	AG
IC1403	VHiMC14053F-1	J		AD
IC1404	VHiNJM318M/-1	J	Inv. Amp.	AG
IC1405	VHiNJM318M/-1	J	Inv. Amp.	AG
IC1406	VHiMC14053F-1	J		AD
IC1407	VHiNJM318M/-1	J	Inv. Amp.	AG
IC1408	VHiNJM318M/-1	J	Inv. Amp.	AG
IC1409	VHiNJM2904M-1	J		AE
IC1410	VHiNJM3415M-1	J	Com. Driver	AT
IC1501	RH-iX1924CEZZ	J	IR3P89	AP
IC1504	VHiNJM2902M-1	J	AGC	AF
IC1601	VHiTHC221AF-1	J		AG
IC1602	RH-iX2174CEZZ	J	MC74HC4538FR	AG
IC1603	RH-iX1972CEZZ	J	SN74HC164NS	AF
IC1604	VHiMCHC257F-1	J		AF
IC1605	VHiTC7W74F/-1	J	PAL/SECAM H Phase Adj.	AE
IC1606	VHiNJM2902M-1	J		AF
IC1608	VHiSC7S08F/-1	J		AC
IC1609	VHiSC7S08F/-1	J		AC

Ref. No.	Part No.	★	Description	Code

DUNTK8713DE01
MAIN UNIT (Continued)

INTEGRATED CIRCUITS (Continued)

IC2001	RH-iX2549CEZZ	J	M37102M8	BA
IC2002	VHiLH5048F/-1	J	8 Port D/A Converter	AK
IC2004	VHiXM93C46F-1	J	EE Memory	AH
IC2005	VHiMB4052PF-1	J	4 CH A/D Converter	AP
IC2006	RH-iX1069CEZZ	J	M51943AML, Reset IC	AE
IC4101	RH-iX2379CEZZ	J	Controller	AY
IC4102	RH-iX2063CEZZ	J	UPD42102G-3	AV
IC4103	RH-iX0142TAZZ	J	UPC659G	AU
IC4104	VHiMB40778F-1	J		AN
IC4105	VHiSC7S04F/-1	J		AC
IC4106	VHiNJM2107F-1	J	OP Amp.	AE

TRANSISTORS

Q301	VS2SC2412KQ-1	J	2SC2412K	AA
Q401	VS2SC2412KQ-1	J	2SC2412K	AA
Q402	VS2SC2412KQ-1	J	2SC2412K	AA
Q405	VS2SC2412KQ-1	J	2SC2412K	AA
Q406	VS2SC2412KQ-1	J	2SC2412K	AA
Q408	VS2SC2412KQ-1	J	2SC2412K	AA
Q409	VS2SC2412KQ-1	J	2SC2412K	AA
Q410	VS2SC2412KQ-1	J	2SC2412K	AA
Q413	VS2SC2412KQ-1	J	2SC2412K	AA
Q414	VS2SC2412KQ-1	J	2SC2412K	AA
Q415	VS2SC2412KQ-1	J	2SC2412K	AA
Q416	VS2SC2412KQ-1	J	2SC2412K	AA
Q417	VS2SC2412KQ-1	J	2SC2412K	AA
Q418	VS2SA1037KQ-1	J	2SA1037K	AA
Q419	VS2SA1037KQ-1	J	2SA1037K	AA
Q502	VS2SC2412KQ-1	J	2SC2412K	AA
Q801	VS2SC2412KQ-1	J	2SC2412K	AA
Q802	VS2SC2412KQ-1	J	2SC2412K	AA
Q803	VS2SC2412KQ-1	J	2SC2412K	AA
Q804	VS2SA1037KQ-1	J	2SA1037K	AA
Q805	VS2SA1037KQ-1	J	2SA1037K	AA
Q806	VS2SA1037KQ-1	J	2SA1037K	AA
Q807	VS2SA1037KQ-1	J	2SA1037K	AA
Q810	VS2SC2412KQ-1	J	2SC2412K	AA
Q811	VS2SA1037KQ-1	J	2SA1037K	AA
Q812	VS2SA1037KQ-1	J	2SA1037K	AA
Q813	VS2SA1037KQ-1	J	2SA1037K	AA
Q814	VS2SA1037KQ-1	J	2SA1037K	AA
Q816	VS2SA1037KQ-1	J	2SA1037K	AA
Q818	VS2SA1037KQ-1	J	2SA1037K	AA
Q902	VS2SC2412KQ-1	J	2SC2412K	AA
Q903	VS2SA1037KQ-1	J	2SA1037K	AA
Q904	VS2SC2412KQ-1	J	2SC2412K	AA
Q906	VS2SA1037KQ-1	J	2SA1037K	AA
Q907	VS2SA1037KQ-1	J	2SA1037K	AA
Q1401	VS2SC2412KQ-1	J	2SC2412K	AA
Q1402	VS2SA1037KQ-1	J	2SA1037K	AA
Q1403	VS2SC2412KQ-1	J	2SC2412K	AA

Ref. No.	Part No.	★	Description	Code

TRANSISTORS (Continued)

Q1404	VS2SA1037KQ-1	J	2SA1037K	AA
Q1405	VS2SC2412KQ-1	J	2SC2412K	AA
Q1408	VS2SA1037KQ-1	J	2SA1037K	AA
Q1409	VS2SC2412KQ-1	J	2SC2412K	AA
Q1413	VS2SC2412KQ-1	J	2SC2412K	AA
Q1414	VS2SA1037KQ-1	J	2SA1037K	AA
Q1415	VS2SC2412KQ-1	J	2SC2412K	AA
Q1416	VS2SA1037KQ-1	J	2SA1037K	AA
Q1420	VS2SA1037KQ-1	J	2SA1037K	AA
Q1421	VS2SC2412KQ-1	J	2SC2412K	AA
Q1425	VS2SC2412KQ-1	J	2SC2412K	AA
Q1426	VS2SA1037KQ-1	J	2SA1037K	AA
Q1427	VS2SC2412KQ-1	J	2SC2412K	AA
Q1428	VS2SA1037KQ-1	J	2SA1037K	AA
Q1432	VS2SA1037KQ-1	J	2SA1037K	AA
Q1433	VS2SC2412KQ-1	J	2SC2412K	AA
Q1501	VS2SC2412KQ-1	J	2SC2412K	AA
Q1502	VS2SC2412KQ-1	J	2SC2412K	AA
Q1503	VS2SC2412KQ-1	J	2SC2412K	AA
Q1504	VSiMX2/////-1	J	iMX2	AB
Q1505	VS2SC2412KQ-1	J	2SC2412K	AA
Q1506	VS2SC2412KQ-1	J	2SC2412K	AA
Q1601	VSFMW1/////-1	J	FMW1	AB
Q1602	VSFMW1/////-1	J	FMW1	AB
Q1603	VSFMW1/////-1	J	FMW1	AB
Q1604	VSFMW1/////-1	J	FMW1	AB
Q1605	VSFMW1/////-1	J	FMW1	AB
Q1606	VSFMW1/////-1	J	FMW1	AB
Q1607	VS2SC2412KQ-1	J	2SC2412K	AA
Q1608	VS2SC2412KQ-1	J	2SC2412K	AA
Q1609	VS2SC2412KQ-1	J	2SC2412K	AA
Q1610	VS2SA1037KQ-1	J	2SA1037K	AA
Q1611	VS2SC2412KQ-1	J	2SC2412K	AA
Q2001	VS2SC2412KQ-1	J	2SC2412K	AA
Q2002	VS2SC2412KQ-1	J	2SC2412K	AA
Q2003	VS2SC2412KQ-1	J	2SC2412K	AA
Q2004	VS2SC2412KQ-1	J	2SC2412K	AA
Q2005	VS2SC2412KQ-1	J	2SC2412K	AA
Q2006	VS2SA1037KQ-1	J	2SA1037K	AA
Q2007	VS2SC2412KQ-1	J	2SC2412K	AA
Q2009	VS2SA1037KQ-1	J	2SA1037K	AA
Q2010	VS2SA1037KQ-1	J	2SA1037K	AA
Q2011	VS2SC2412KQ-1	J	2SC2412K	AA
Q2012	VS2SA1037KQ-1	J	2SA1037K	AA
Q2013	VS2SA1037KQ-1	J	2SA1037K	AA
Q2014	VS2SC2412KQ-1	J	2SC2412K	AA
Q2017	VS2SC2412KQ-1	J	2SC2412K	AA
Q2018	VS2SC2412KQ-1	J	2SC2412K	AA
Q2019	VS2SC2412KQ-1	J	2SC2412K	AA
Q2020	VS2SC2412KQ-1	J	2SC2412K	AA
Q2021	VS2SC2412KQ-1	J	2SC2412K	AA
Q2022	VS2SC2412KQ-1	J	2SC2412K	AA
Q2024	VS2SA1037KQ-1	J	2SA1037K	AA
Q2025	VS2SC2412KQ-1	J	2SC2412K	AA
Q2026	VS2SA1037KQ-1	J	2SA1037K	AA

DUNTK8713DE01
MAIN UNIT (Continued)

TRANSISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
Q4101	VS2SC2412KQ-1	J	2SC2412K	AA
Q4102	VS2SC2412KQ-1	J	2SC2412K	AA
Q4103	VS2SC2412KQ-1	J	2SC2412K	AA
Q4104	VS2SA1037KQ-1	J	2SA1037K	AA
Q4105	VS2SC2412KQ-1	J	2SC2412K	AA
Q4106	VS2SA1037KQ-1	J	2SA1037K	AA
Q4107	VS2SC2412KQ-1	J	2SC2412K	AA
Q4108	VS2SC2412KQ-1	J	2SC2412K	AA
Q4109	VS2SA1037KQ-1	J	2SA1037K	AA

DIODES

Ref. No.	Part No.	★	Description	Code
D402	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D461	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D904	RH-EX0627CEZZ	J	Zener Diode, 13V	AB
D905	VHDDAN202U/-1	J	DAN202U	AA
D906	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D907	VHDDAN202U/-1	J	DAN202U	AA
D908	RH-EX0252CEZZ	J	Zener Diode	AB
D912	RH-EX0252CEZZ	J	Zener Diode	AB
D913	VHDMA152WK/-1	J	MA152WK	AA
D914	VHDMA152WK/-1	J	MA152WK	AA
D915	VHDMA152WK/-1	J	MA152WK	AA
D916	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D917	VHDMA152WK/-1	J	MA152WK	AA
D918	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D919	VHDDAN202U/-1	J	DAN202U	AA
D1401	RH-EX0231CEZZ	J	Zener Diode	AB
D1407	VHDDAN202U/-1	J	DAN202U	AA
D1408	VHDDAN202U/-1	J	DAN202U	AA
D1409	VHDDAN202U/-1	J	DAN202U	AA
D1410	VHDDAN202U/-1	J	DAN202U	AA
D1411	VHDDAN202U/-1	J	DAN202U	AA
D1412	VHDDAN202U/-1	J	DAN202U	AA
D1413	VHDDAN202U/-1	J	DAN202U	AA
D1501	VHDMA152WK/-1	J	MA152WK	AA
D1502	VHDDAN202U/-1	J	DAN202U	AA
D1503	VHDDAN202U/-1	J	DAN202U	AA
D1601	RH-EX0625CEZZ	J	Zener Diode	AB
D2004	VHDDAP202U/-1	J	DAP202U	AA
D2005	VHDDAP202U/-1	J	DAP202U	AA
D2006	VHDDAP202U/-1	J	DAP202U	AA
D2010	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D2011	VHDDAN202U/-1	J	DAN202U	AA
D2012	VHDMA143///-1	J	MA143	AB
D2013	VHDMA143///-1	J	MA143	AB
D2014	VHDMA143///-1	J	MA143	AB
D2015	VHDMA143///-1	J	MA143	AB
D2016	VHDMA143///-1	J	MA143	AB
D2017	VHDMA143///-1	J	MA143	AB
D2018	VHDDAN202U/-1	J	DAN202U	AA

DIODES (Continued)

Ref. No.	Part No.	★	Description	Code
D2019	VHDDAN202U/-1	J	DAN202U	AA
D2020	VHDDAN202U/-1	J	DAN202U	AA
D2022	VHDMA143///-1	J	MA143	AB
D2023	VHDDAN202U/-1	J	DAN202U	AA
D2024	VHDDAN202U/-1	J	DAN202U	AA
D2025	VHDMA143///-1	J	MA143	AB
D2026	VHDMA143///-1	J	MA143	AB
D2027	VHDMA143///-1	J	MA143	AB
D2028	VHDDAN202U/-1	J	DAN202U	AA
D2029	VHDDAN202U/-1	J	DAN202U	AA
D2031	VHDDAN202U/-1	J	DAN202U	AA
D2032	VHDDAN202U/-1	J	DAN202U	AA
D2033	VHDDAN202U/-1	J	DAN202U	AA
D2034	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D2035	VHDDAN202U/-1	J	DAN202U	AA
D4101	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D4102	VHD1SV217//-1	J	1SV217	AB
	RH-HZ0045CEZZ	J	Thermistor	AQ

PACKAGED CIRCUITS

Ref. No.	Part No.	★	Description	Code
X801	RCRSB0002CEZZ	J	Crystal, 4.43 MHz	AM
X802	RCRSB0005CEZZ	J	Crystal, 3.58 MHz	AN

COIL AND TRANSFORMERS

Ref. No.	Part No.	★	Description	Code
CF401	RFiLC0286CEZZ	J	Ceramic Filter	AE
CF801	RFiLA0034CEZZ	J	Ceramic Filter	AD
CF2001	RFiLC0045TAZZ	J	Ceramic Filter	AE
DL403	RCiLZ0893CEZZ	J	Delay Line, Y-DL	AM
DL404	RCiLZ0895CEZZ	J	Delay Line, C-DL	AK
DL405	RCiLZ0894CEZZ	J	Delay Line, Y-DL	AM
DL801	RCiLZ0475CEZZ	J	Delay Line, 1H DL	AP
FL4101	RCiLF0214CEZZ	J	Filter	AF
FL4104	RCiLF0214CEZZ	J	Filter	AF
L401	VP-1M270J3R8N	J	Coil, 27μH	AC
L402	VP-1M180J2R5N	J	Coil, 18μH	AC
L404	VP-1M221J170N	J	Coil, 220μH	AB
L501	VP-JM220KR33N	J	Coil, 22μH	AD
L801	VP-1M8R2J1R5N	J	Coil, 8.2μH	AC
L4101	RCiLB0065CEZZ	J	VCO2 Adj. Coil	AG
L4102	VP-1M3R3JR93N	J	Coil, 3.3μH	AB
T401	RCiLi0596CEZZ	J	SECAM Trap Coil	AG
T402	RCiLi0595CEZZ	J	PAL Trap Coil	AG
T801	RCiLi0578CEZZ	J	SECAM B-Y Adj. Coil	AH
T802	RCiLi0597CEZZ	J	SECAM R-Y Adj. Coil	AH
T803	RCiLZ0511CEZZ	J	1H Delay Coil	AD
T804	RCiLi0577CEZZ	J	Bell Filter Coil	AH
T805	RCiLi0578CEZZ	J	SECAM ID Adj. Coil	AH
T2001	RCiLB0122CEZZ	J	Sign Position Adj. Coil	AF

Ref. No.	Part No.	★	Description	Code

DUNTK8713DE01
MAIN UNIT (Continued)

CONTROLS

R859	RVR-M7997TAZZ	J	1k(B)	1H Delay	AC
R1479	RVR-M8000TAZZ	J	3.3k(B)	Common Bias	AB
R1546	RVR-M4429CEZZ	J	3.3k(B)	AGC	AD
R1605	RVR-M4437CEZZ	J	68k(B)	PAL/SECAM H Phase	AD
R1667	RVR-M4426CEZZ	J	1k(B)	B Bias	AD
R1669	RVR-M4426CEZZ	J	1k(B)	Sub Bias	AD
R1673	RVR-M4426CEZZ	J	1k(B)	R Bias	AD
R4162	RVR-M4429CEZZ	J	3.3k(B)	PAL Y Level	AD

CAPACITORS

C302	VCKYTV1CF105Z	J	1	16V	Ceramic	AB
C306	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C309	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C315	VCEAPK1CN107M	J	100	16V	Electrolytic	AD
C401	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C402	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C403	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C407	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C408	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C409	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C410	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C411	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C412	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C413	VCCCCY1HH220J	J	22p	50V	Ceramic	AA
C414	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C416	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C417	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C420	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C422	VCCCCY1HH150J	J	15p	50V	Ceramic	AA
C423	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C424	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C427	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C428	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C429	VCCCCY1HH560J	J	56p	50V	Ceramic	AA
C430	VCE9PF1HW225M	J	2.2	50V	Elect. (N.P)	AC
C431	VCCCCY1HH221J	J	220p	50V	Ceramic	AA
C432	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C434	VCKYCY1HB472K	J	4700p	50V	Ceramic	AA
C435	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C438	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C442	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C444	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C446	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C447	VCKYTV1CF105Z	J	1	16V	Ceramic	AB
C501	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C502	VCCCCY1HH471J	J	470p	50V	Ceramic	AA
C510	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C511	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C512	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C801	VCCCCY1HH101J	J	100p	50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code

CAPACITORS (Continued)

C802	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C803	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C804	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C805	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C806	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C807	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C808	VCCCCY1HH390J	J	39p	50V	Ceramic	AA
C809	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C811	VCCCCY1HH330J	J	33p	50V	Ceramic	AA
C812	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C813	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C815	VCKYCY1CB273K	J	0.027	16V	Ceramic	AA
C816	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C817	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C818	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C819	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C821	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C822	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C823	VCCCCY1HH220J	J	22p	50V	Ceramic	AA
C824	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C825	VCKYCY1CB273K	J	0.027	16V	Ceramic	AA
C826	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C827	VCCCCY1HH100D	J	10p	50V	Ceramic	AA
C828	VCKYCY1CB273K	J	0.027	16V	Ceramic	AA
C830	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C831	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C832	VCKYCY1HB682K	J	6800p	50V	Ceramic	AA
C834	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C835	VCKYCY1EB223K	J	0.022	25V	Ceramic	AA
C836	VCEAPH1HW225M	J	2.2	50V	Electrolytic	AB
C837	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C838	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C839	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C840	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C841	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C842	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C843	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C844	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C845	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C846	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C847	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C848	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C849	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C851	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C852	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C853	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C854	VCCCCY1HH100D	J	10p	50V	Ceramic	AA
C856	VCEAGA1AW108M	J	100	10V	Electrolytic	AC
C857	VCCCCY1HH3R0C	J	3p	50V	Ceramic	AA
C860	VCCCCY1HH5R0C	J	5p	50V	Ceramic	AA
C861	VCCCCY1HH820J	J	82p	50V	Ceramic	AA
C903	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C904	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C905	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C908	VCEAPH1CW106M	J	10	16V	Electrolytic	AB

DUNTK8713DE01
MAIN UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C910	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C912	VCEAPF0JW476M	J	47	6.3V	Electrolytic	AB
C913	VCEAPK1CN107M	J	100	16V	Electrolytic	AD
C914	RC-EZ0363CEZZ	J	330	6.3V	Electrolytic	AC
C921	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C922	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C1402	VCCCCY1HH4R0C	J	4p	50V	Ceramic	AA
C1403	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1404	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C1405	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1408	VCCCCY1HH4R0C	J	4p	50V	Ceramic	AA
C1409	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1410	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C1411	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1412	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1414	VCCCCY1HH4R0C	J	4p	50V	Ceramic	AA
C1415	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1416	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C1419	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1420	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1423	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1424	VCEAPF1VW226M	J	22	35V	Electrolytic	AB
C1426	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1427	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1428	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1431	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1432	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1437	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1438	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1439	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1440	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1441	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1442	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1443	VCEAPH1HW104M	J	0.1	50V	Electrolytic	AB
C1445	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1447	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1501	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1502	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1503	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1504	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1505	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1506	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1507	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1508	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1509	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1510	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1511	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1512	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1513	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1514	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1515	VCCCCY1HH471J	J	470p	50V	Ceramic	AA
C1517	VCCCCY1HH151J	J	150p	50V	Ceramic	AA

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C1518	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1519	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1520	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1521	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1522	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1523	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1524	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1525	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C1526	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1528	VCEAPH1HW225M	J	2.2	50V	Electrolytic	AB
C1529	VCKYTV1CF105Z	J	1	16V	Ceramic	AB
C1531	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1532	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1541	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C1604	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1605	VCCCCY1EH102J	J	1000p	25V	Ceramic	AB
C1606	VCCCCY1EH561J	J	560p	25V	Ceramic	AA
C1607	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1608	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1609	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1610	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1611	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1612	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1613	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1614	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1615	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1616	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1617	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1618	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1619	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1620	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1621	VCCCCY1HH221J	J	220p	50V	Ceramic	AA
C1622	VCCCCY1EH821J	J	820p	25V	Ceramic	AB
C1623	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1624	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C1625	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1626	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1627	VCCCCY1HH471J	J	470p	50V	Ceramic	AA
C1628	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1629	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1630	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1631	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1634	VCKYTV1CF105Z	J	1	16V	Ceramic	AB
C1635	VCKYTV1CF105Z	J	1	16V	Ceramic	AB
C1636	VCKYTV1CF105Z	J	1	16V	Ceramic	AB
C2006	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2007	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2008	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2009	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2010	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2011	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2012	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2013	VCCCCY1HH391J	J	390p	50V	Ceramic	AA
C2014	VCKYCY1HB681K	J	680p	50V	Ceramic	AA
C2015	VCEAPH1CW106M	J	10	16V	Electrolytic	AB

DUNTK8713DE01
MAIN UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C2016	VCEAPF0JW476M	J	47	6.3V	Electrolytic	AB
C2017	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2018	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2019	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2020	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2021	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2022	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2023	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2024	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2025	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C2026	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C2030	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2031	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2032	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2033	VCEA2H0JW338M	J	3300	6.3V	Electrolytic	AE
C2034	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2035	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2036	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2037	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2038	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2040	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2041	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2042	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2043	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C2044	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2045	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C2046	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2047	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2048	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2049	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2050	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2052	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2063	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2064	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2065	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2066	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2067	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2070	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2071	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2072	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2073	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2074	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2075	VCCCCY1HH270J	J	27p	50V	Ceramic	AA
C2153	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2154	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2155	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2156	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2157	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2158	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2164	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2165	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C4030	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C4101	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4102	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4103	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4104	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4105	VCCCCY1HH471J	J	470p	50V	Ceramic	AA
C4106	VCCCCY1EH561J	J	560p	25V	Ceramic	AA
C4107	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4108	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4109	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4110	VCEAPH1HW225M	J	2.2	50V	Electrolytic	AB
C4111	VCEAPH1HW225M	J	2.2	50V	Electrolytic	AB
C4112	VCEAPH1HW225M	J	2.2	50V	Electrolytic	AB
C4113	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4114	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4115	VCE9PF1CW475M	J	4.7	16V	Elect. (N.P)	AC
C4116	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C4117	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4118	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4119	VCCCCY1HH220J	J	22p	50V	Ceramic	AA
C4120	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C4121	VCCCCY1HH270J	J	27p	50V	Ceramic	AA
C4122	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C4123	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4124	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4125	VCCCCY1EH102J	J	1000p	25V	Ceramic	AB
C4126	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4127	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C4128	VCEAPK1CN107M	J	100	16V	Electrolytic	AD
C4135	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4136	VCCCCY1HH330J	J	33p	50V	Ceramic	AA
C4137	VCCCCY1HH470J	J	47p	50V	Ceramic	AA

RESISTORS

R311	VRN-CY1JF272D	J	2.7k	1/16W	Metal Film	AB
R324	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R325	VRS-CY1JF153J	J	15k	1/16W	Metal Oxide	AA
R326	VRN-CY1JF272D	J	2.7k	1/16W	Metal Film	AB
R332	VRS-CY1JF222J	J	2.2k	1/16W	Metal Oxide	AA
R406	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R407	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R411	VRS-CY1JF223J	J	22k	1/16W	Metal Oxide	AA
R413	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R416	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R421	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R422	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R423	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R424	VRS-CY1JF222J	J	2.2k	1/16W	Metal Oxide	AA
R425	VRS-CY1JF182J	J	1.8k	1/16W	Metal Oxide	AA
R426	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R427	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R430	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R431	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R432	VRS-CY1JF151J	J	150	1/16W	Metal Oxide	AA
R433	VRS-CY1JF471J	J	470	1/16W	Metal Oxide	AA

DUNTK8713DE01
MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R434	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R435	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R436	VRS-CY1JF221J	J	220 1/16W Metal Oxide	AA
R438	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R439	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R440	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R441	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R444	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R446	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R447	VRS-CY1JF273J	J	27k 1/16W Metal Oxide	AA
R448	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R449	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R454	VRS-CY1JF5R6J	J	5.6 1/16W Metal Oxide	AA
R455	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R456	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R460	VRS-CY1JF562J	J	5.6k 1/16W Metal Oxide	AA
R461	VRS-CY1JF393J	J	39k 1/16W Metal Oxide	AA
R462	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R463	VRS-CY1JF562J	J	5.6k 1/16W Metal Oxide	AA
R464	VRS-CY1JF560J	J	56 1/16W Metal Oxide	AA
R465	VRS-CY1JF000J	J	0	AA
R467	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R468	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R469	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R470	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R471	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R472	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R473	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R475	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R476	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R478	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R479	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R480	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R481	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R482	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R483	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R484	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R485	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R487	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R488	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R489	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R490	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R491	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R492	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R493	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R494	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R495	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R496	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R501	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R507	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R512	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R513	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R529	VRS-TX2HF680J	J	68 1/2W Metal Oxide	AA
R530	VRS-CY1JF222F	J	2.2k 1/16W Metal Oxide	AA
R532	VRS-CY1JF822F	J	8.2k 1/16W Metal Oxide	AA
R534	VRS-CY1JF222F	J	2.2k 1/16W Metal Oxide	AA
R535	VRS-TV1JD5R6J	J	5.6 1/10W Metal Oxide	AA
R536	VRS-TV1JD5R6J	J	5.6 1/10W Metal Oxide	AA
R537	VRS-TV1JD5R6J	J	5.6 1/10W Metal Oxide	AA
R538	VRS-TV1JD5R6J	J	5.6 1/10W Metal Oxide	AA
R539	VRS-TV1JD5R6J	J	5.6 1/10W Metal Oxide	AA
R540	VRS-TV1JD5R6J	J	5.6 1/10W Metal Oxide	AA
R549	VRS-CY1JF223J	J	22k 1/10W Metal Oxide	AA
R550	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R551	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R552	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R553	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R554	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R556	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R801	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R802	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R803	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R804	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R805	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R806	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R807	VRS-CY1JF151J	J	150 1/16W Metal Oxide	AA
R808	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R809	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R810	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R811	VRS-CY1JF681F	J	680 1/16W Metal Oxide	AA
R813	VRS-CY1JF751F	J	750 1/16W Metal Oxide	AA
R814	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R815	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R816	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R817	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R818	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R819	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R820	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R821	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R822	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R823	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R824	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R825	VRS-TV1JD152J	J	1.5k 1/10W Metal Oxide	AA
R826	VRS-TV1JD152J	J	1.5k 1/10W Metal Oxide	AA
R827	VRS-TV1JD152J	J	1.5k 1/10W Metal Oxide	AA
R828	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R829	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R830	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R831	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R832	VRS-CY1JF124J	J	120k 1/16W Metal Oxide	AA
R833	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R834	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R835	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R836	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R837	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R838	VRS-CY1JF225J	J	2.2M 1/16W Metal Oxide	AA
R839	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA

DUNTK8713DE01
MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R840	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R841	VRS-CY1JF120J	J	12 1/16W Metal Oxide	AA
R842	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R843	VRS-CY1JF475J	J	4.7M 1/16W Metal Oxide	AA
R844	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R846	VRS-CY1JF225J	J	2.2M 1/16W Metal Oxide	AA
R847	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R848	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R849	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R850	VRS-CY1JF181J	J	180 1/16W Metal Oxide	AA
R851	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R852	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R853	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R856	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R857	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R859	*See Controls*			
R861	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R862	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R863	VRS-CY1JF334J	J	330k 1/16W Metal Oxide	AA
R869	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R871	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R872	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R873	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R874	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R875	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R880	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R881	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R882	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R883	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R890	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R892	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R893	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R896	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R897	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R898	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R905	VRS-TV1JD473J	J	47k 1/10W Metal Oxide	AA
R906	VRS-TV1JD121J	J	120 1/10W Metal Oxide	AA
R907	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R908	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R909	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R910	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R911	VRS-TX2HF330J	J	33 1/2W Metal Oxide	AA
R917	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R918	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R919	VRS-TV1JD181J	J	180 1/10W Metal Oxide	AA
R920	VRS-TX2HF2R2J	J	2.2 1/2W Metal Oxide	AB
R921	VRS-TX2HF2R2J	J	2.2 1/2W Metal Oxide	AB
R922	VRS-TX2HF270J	J	27 1/2W Metal Oxide	AB
R923	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R924	VRS-TW2ED222J	J	2.2k 1/4W Metal Oxide	AA
R925	VRS-TV1JD103J	J	10k 1/10W Metal Oxide	AA
R926	VRS-TX2HF3R9J	J	3.9 1/2W Metal Oxide	AB
R927	VRS-TV1JD272J	J	2.7k 1/10W Metal Oxide	AA
R928	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R929	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R930	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R931	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R932	VRS-TV1JD181J	J	180 1/10W Metal Oxide	AA
R1401	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1402	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R1403	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1404	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1405	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1406	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1408	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1409	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1410	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1411	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1412	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1413	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1415	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R1417	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1418	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1419	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1424	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1428	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R1430	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1432	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1433	VRS-CY1JF334J	J	330k 1/16W Metal Oxide	AA
R1434	VRS-CY1JF224J	J	220k 1/16W Metal Oxide	AA
R1436	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1437	VRS-CY1JF822F	J	8.2k 1/16W Metal Oxide	AA
R1439	VRS-CY1JF822F	J	8.2k 1/16W Metal Oxide	AA
R1442	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1444	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R1446	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1447	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1448	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1449	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1450	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1451	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1452	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1453	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R1454	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1455	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1456	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1457	VRS-CY1JF2R2J	J	2.2 1/16W Metal Oxide	AA
R1458	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1459	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1460	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1461	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1462	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R1463	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1464	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1465	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1466	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1467	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA

DUNTK8713DE01
MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1468	VRS-CY1JF393J	J	39k 1/16W Metal Oxide	AA
R1469	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1470	VRS-CY1JF103F	J	10k 1/16W Metal Oxide	AA
R1471	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R1472	VRS-CY1JF103F	J	10k 1/16W Metal Oxide	AA
R1474	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1475	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1476	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1477	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R1478	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1479	*See Controls*			
R1480	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R1482	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1483	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1485	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1487	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1488	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1489	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R1492	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1495	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1496	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1497	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1498	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1499	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1501	VRS-CY1JF151J	J	150 1/16W Metal Oxide	AA
R1502	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1503	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1504	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1505	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R1508	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R1509	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1510	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1511	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1512	VRS-TX2HF120J	J	12 1/2W Metal Oxide	AA
R1514	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1515	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1516	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1521	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1522	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1523	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1527	VRS-CY1JF100J	J	10 1/16W Metal Oxide	AA
R1528	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1529	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1530	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1531	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1532	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1533	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R1534	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1535	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1536	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1537	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1538	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1539	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1541	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R1542	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R1543	VRS-CY1JF274J	J	270k 1/16W Metal Oxide	AA
R1544	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1545	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R1546	*See Controls*			
R1547	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1548	VRS-CY1JF331J	J	330 1/16W Metal Oxide	AA
R1549	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R1550	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1552	VRS-CY1JF000J	J	0	AA
R1554	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1556	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1557	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1558	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R1559	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1560	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1561	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1562	VRS-CY1JF273J	J	27k 1/16W Metal Oxide	AA
R1580	VRS-CY1JF100J	J	10 1/16W Metal Oxide	AA
R1582	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1603	VRN-CY1JF562D	J	5.6k 1/16W Metal Film	AB
R1604	VRN-CY1JF104D	J	100k 1/16W Metal Film	AB
R1605	*See Controls*			
R1606	VRN-CY1JF123D	J	12k 1/16W Metal Film	AB
R1608	VRN-CY1JF123D	J	12k 1/16W Metal Film	AB
R1609	VRN-CY1JF103D	J	10k 1/16W Metal Film	AA
R1611	VRN-CY1JF133D	J	13k 1/16W Metal Film	AB
R1612	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1613	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1614	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1615	VRN-CY1JF681D	J	680 1/16W Metal Film	AB
R1616	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1617	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1618	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1619	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1620	VRN-CY1JF332D	J	3.3k 1/16W Metal Film	AA
R1621	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1622	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1623	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1624	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1625	VRN-CY1JF681D	J	680 1/16W Metal Film	AB
R1626	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1627	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1628	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1629	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1630	VRN-CY1JF332D	J	3.3k 1/16W Metal Film	AA
R1631	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1632	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1633	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1634	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1635	VRN-CY1JF681D	J	680 1/16W Metal Film	AB
R1636	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1637	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA

DUNTK8713DE01
MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1638	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1639	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1640	VRN-CY1JF332D	J	3.3k 1/16W Metal Film	AA
R1641	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1642	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1643	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1644	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1645	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1646	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1647	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1648	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1649	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1650	VRN-CY1JF102D	J	1k 1/16W Metal Film	AB
R1651	VRN-CY1JF102D	J	1k 1/16W Metal Film	AB
R1652	VRN-CY1JF102D	J	1k 1/16W Metal Film	AB
R1653	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1655	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1656	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1657	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1658	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1659	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1660	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1661	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1662	VRN-CY1JF223D	J	22k 1/16W Metal Film	AA
R1663	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R1664	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R1665	VRN-CY1JF473D	J	47k 1/16W Metal Film	AB
R1666	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1667	*See Controls*			
R1668	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1669	*See Controls*			
R1670	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1671	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1672	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1673	*See Controls*			
R1674	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1675	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1676	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1677	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1678	VRS-CY1JF331J	J	330 1/16W Metal Oxide	AA
R2001	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2002	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2003	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R2004	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2005	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2006	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2007	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R2008	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2009	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2010	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R2011	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2012	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R2013	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R2014	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R2015	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2016	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2017	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2018	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2021	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2022	VRN-CY1JF122D	J	1.2k 1/16W Metal Film	AB
R2025	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2026	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2027	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2028	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2029	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2030	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2031	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2032	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2033	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2034	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2037	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R2038	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R2039	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R2040	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2041	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2042	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2043	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2044	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2045	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2046	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2047	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2048	VRS-CY1JF273J	J	27k 1/16W Metal Oxide	AA
R2049	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R2050	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2054	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2055	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2056	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2059	VRN-CY1JF513D	J	51k 1/16W Metal Film	AB
R2060	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2064	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R2065	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2067	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2068	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R2069	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2070	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2078	VRS-CY1JF105J	J	1M 1/16W Metal Oxide	AA
R2079	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2081	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2082	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2083	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2084	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2085	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2086	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2087	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2088	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2089	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2090	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

DUNTK8713DE01
MAIN UNIT (Continued)

RESISTORS (Continued)

R2091	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2094	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2096	VRS-CY1JF393J	J	39k 1/16W Metal Oxide	AA
R2097	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2098	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2099	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R2100	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R2101	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R2102	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2103	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2104	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2105	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2106	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2107	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2108	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2109	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R2110	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2112	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2113	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2114	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2115	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2116	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R2117	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2118	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2120	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2121	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2123	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2124	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2125	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2127	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2128	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R2129	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2131	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2132	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2133	VRS-CY1JF184J	J	180k 1/16W Metal Oxide	AA
R2135	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2136	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2138	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2140	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R2144	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2146	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R2147	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R2148	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R2149	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2150	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2151	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2152	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2154	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R2155	VRN-TV1JD392D	J	3.9k 1/16W Metal Film	AA
R2156	VRN-TV1JD162D	J	1.6k 1/16W Metal Film	AB
R2157	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2159	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

RESISTORS (Continued)

R2160	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R2163	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2164	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2165	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2166	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2169	VRN-CY1JF682D	J	6.8k 1/16W Metal Film	AB
R2170	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2171	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2172	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2173	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2174	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2175	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2176	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2177	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2178	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2179	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2180	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2181	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2182	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4094	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R4101	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4102	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4103	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4104	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4105	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4106	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4107	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4108	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4109	VRS-TX2HF181J	J	180 1/2W Metal Oxide	AA
R4110	VRS-TX2HF181J	J	180 1/2W Metal Oxide	AA
R4111	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R4112	VRS-CY1JF105J	J	1M 1/16W Metal Oxide	AA
R4113	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R4114	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R4115	VRS-CY1JF105J	J	1M 1/16W Metal Oxide	AA
R4116	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R4117	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R4118	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R4119	VRS-CY1JF273J	J	27k 1/16W Metal Oxide	AA
R4120	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R4121	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R4122	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4123	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4124	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4125	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4126	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4127	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4128	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4129	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4130	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4131	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4132	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4133	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4134	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4135	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

DUNTK8713DE01
MAIN UNIT (Continued)

RESISTORS (Continued)

R4136	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4137	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4138	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4139	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R4141	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R4142	VRS-CY1JF560J	J	56 1/16W Metal Oxide	AA
R4143	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R4144	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R4145	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R4146	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R4147	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R4148	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4149	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4150	VRS-CY1JF560J	J	56 1/16W Metal Oxide	AA
R4151	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4152	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R4153	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4154	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R4155	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R4156	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R4157	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4158	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4159	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R4160	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R4161	VRS-CY1JF560J	J	56 1/16W Metal Oxide	AA
R4162	*See Controls*			
R4163	VRS-CY1JF562J	J	5.6k 1/16W Metal Oxide	AA
R4165	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R4167	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R4176	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA

SWITCH

S2014	QSW-K0065GEZZ	J	Factory Switch	AC

MISCELLANEOUS PARTS

FB2001	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4102	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4103	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4104	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4106	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4107	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4108	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4109	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4110	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4111	RBLN-0059CEZZ	J	Ferrite Bead	AB
P2002	QPLGN0174FJZZ	J	Plug 2-pin, (QA)	AC
SC1401	QSOCN0231FJZZ	J	Socket 30-pin, (LCD)	AF
SC2001	QSOCN1036TAZZ	J	Socket 10-pin, (LE)	AD
SC2002	QSOCN0936TAZZ	J	Socket 9-pin, (SW)	AD

Ref. No.	Part No.	★	Description	Code

MISCELLANEOUS PARTS (Continued)

SC301	QSOCN0250FJZZ	J	Socket 16-pin, (ED)	AF
SC701	QSOCN0249FJZZ	J	Socket 14-pin, (EC)	AF
TP1	QPLGN0264TAZZ	J	Plug 2-pin, (P1)	AC
TP2	QPLGN0764TAZZ	J	Plug 7-pin, (P2)	AD
TP3	QPLGN0564TAZZ	J	Plug 5-pin, (P3)	AC
TP4	QPLGN0664TAZZ	J	Plug 6-pin, (P4)	AD

—— End of MAIN UNIT ——

RUNTK0488CEZZ
REMOTE CONTROL RECEIVER UNIT

DIODES

D2902	RH-PX0175CEZZ	J	LED, Temp Indicator	AB
D2903	RH-PX0287CEZZ	J	LED, Lamp Indicator	AC
D2904	RH-PX0287CEZZ	J	LED, Power Indicator	AC

CAPACITOR

C2901	95KUGAB101RV	J	100 10V Electrolytic	AC

RESISTOR

R2901	95KUEEB220BE	J	22 1/4W Carbon	AA
	or			
	95KUEEB220BR	J	22 1/4W Carbon	AB

SWITCH

S2901	QSW-P0590CEZZ	J	Power Switch	AG

MISCELLANEOUS PARTS

RMC2901	RRMCU0196CEZZ	J	Remote Control Receiver	AM

—— End of R/C RECEIVER UNIT ——

Ref. No.	Part No.	★	Description	Code

RDENC0149CEZZ
POWER/BALLAST/INPUT UNIT

INTEGRATED CITCUITS

⚠ IC701	95KUCH0097ZZ	J	ZHMA58194	AM
IC702	95KUCC0043AK	J	TA76431S	AE
IC704	95KUCB0061CZ	J	UPC79M12HF-1	AG
⚠ IC1701	95K747295001	J	HICE1221-1	BE
IC2304	95KZBA0076ZZ	J	Power Amp., VHITDA7056	AP
IC2401	95KUCZ0166ZZ	J	Video Sw., NJM2233BD	AK
IC2402	95KUCZ0166ZZ	J	Audio Sw., NJM2233BD	AK

TRANSISTORS

⚠ Q701	95KUAC0225JZ	J	2SC4304	AH
⚠ Q702	95KUAC0243AK	J	2SC3266	AC
⚠ Q703	95KUAC0020DK	J	2SC2001	AC
Q704	95KUAC0152AK	J	2SC2785	AB
Q705	95KUAD0030DZ	J	2SD794Q	AG
	or			
	95KUAD0056EZ	J	2SD794	AF
Q706	95KUAA0072AK	J	2SA1175	AB
Q707	95KUAD0030DZ	J	2SD794Q	AG
	or			
	95KUAD0056EZ	J	2SD794	AF
Q708	95KUAA0072AK	J	2SA1175	AB
Q709	95KUAA0086CZ	J	2SA1385	AG
	or			
	95KUAA0086BZ	J	2SA1385	AG
Q710	95KUAC0152AK	J	2SC2785	AB
Q711	95KUAC0152AK	J	2SC2785	AB
Q712	95KUAC0152AK	J	2SC2785	AB
⚠ Q1701	95KUAG0099AZ	J	2SK1938-01, FET	AV
Q1702	95KUAA0083AK	J	2SA1680	AE
Q1703	95KUAG0131AB	J	2SK1984-01M, FET	AQ
Q1704	95KUAC0234AZ	J	2SC3866	AH
Q1705	95KUAC0004AK	J	2SC945	AB
Q1706	95KUAC0004AK	J	2SC945	AB
Q2401	95KUAC0004AK	J	2SC945	AB

DIODES

⚠ D701	95KUBB0087SZ	J	D5SB60S	AL
	or			
	95KUBB0159DZ	J	D5SBA60	AL
⚠ D702	95KUBC0169CK	J	ERA22-06	AC
⚠ D703	95KUBC0169DK	J	ERA22-08	AD
⚠ D704	95KUBA0005KZ	J	1SS55	AB
⚠ D705	95KUBC0221AK	J	ERA18-02	AC
⚠ D706	95KUBA0005KZ	J	1SS55	AB
⚠ D707	95KUDA0033DL	J	Thyristor, CR02AM-6	AD
⚠ D708	95KUBA0005KZ	J	1SS55	AB
⚠ D709	95KUBA0005KZ	J	1SS55	AB
D710	95KUBC0269BB	J	ERC30-02	AC
D711	95KUBA0005KZ	J	1SS55	AB
D712	95KUBC0269BB	J	ERC30-02	AC
D713	95KUBC0221AK	J	ERA18-02	AC

Ref. No.	Part No.	★	Description	Code

DIODES (Continued)

D714	95KUBA0005KZ	J	1SS55	AB
D715	95KUBDAK100C	J	Zener Diode, RD10ESAB	AB
D716	95KUBDAK100D	J	Zener Diode, RD10ESAB	AB
D717	95KUBC0263BK	J	ERA32-02	AC
D718	95KUBB0158AT	J	ESAB92M-02	AG
D719	95KUBDAK180C	J	Zener Diode, RD18ESAB	AB
D1701	95KUBC0221AK	J	ERA18-02	AC
D1702	95KUBC0221AK	J	ERA18-02	AC
D1703	95KUBC0284BZ	J	YG912S6	AP
D1704	95KUBC0248AK	J	05NU42	AC
D1705	95KUBC0221AK	J	ERA18-02	AC
D1706	95KUBC0263BK	J	ERA32-02	AC
D1707	95KUBA0005KZ	J	1SS55	AB
D1708	95KUBC0221AK	J	ERA18-02	AC
D1709	95KUBC0293CB	J	ERC38-06	AG
D2301	95KUBDAK120C	J	Zener Diode, RD12ESAB	AB
D2302	95KUBDAK120C	J	Zener Diode, RD12ESAB	AB
D2401	95KUBDAK120C	J	Zener Diode, RD12ESAB	AB
D2402	95KUBDAK120C	J	Zener Diode, RD12ESAB	AB
D2403	95KUBA0005KZ	J	1SS55	AB
ZD1701	95KUBDAK300C	J	Zener Diode, RD30ESAB	AB
ZD1702	95KUBDAK300C	J	Zener Diode, RD30ESAB	AB
ZD1703	95KUBDAK5R6C	J	Zener Diode, RD5.6ESAB	AB
ZD1704	95KUBDAK150C	J	Zener Diode, RD15ESAB	AB
ZD1705	95KUBDAK300C	J	Zener Diode, RD30ESAB	AB

PACKAGED CIRCUITS

⚠ PC701	95KUDC0152BB	J	Photocoupler, PC120	AH
	or			
	95KUDC0163BB	J	Photocoupler, PC123	AH
⚠ PC702	95KUDC0152BB	J	Photocoupler, PC120	AH
	or			
	95KUDC0163BB	J	Photocoupler, PC123	AH
⚠ PC1701	95KUDC0152BB	J	Photocoupler, PC120	AH
	or			
	95KUDC0163BB	J	Photocoupler, PC123	AH
⚠ PC1702	95KUDC0152BB	J	Photocoupler, PC120	AH
	or			
	95KUDC0163BB	J	Photocoupler, PC123	AH
PR1701	95KUEZ0486ZZ	J	Positive Coefficient	AH
	or		Thermistor	
	95KUEZ0443ZZ			AK

COIL AND TRANSFORMERS

DL2401	RCiLZ0861CEZZ	J	Delay Line	AT
⚠ L701	95KUKZ0111ZZ	J	Choke Coil	AT
⚠ L702	95KUKZ0683ZZ	J	Line Filter	AP
L704	95KUKZ0432ZZ	J	Choke Coil	AE
L1701	95K129695023	J	Choke Coil	BA
⚠ T701	95K129295028	J	Trans., PTTP82	BB
⚠ T1701	95K129295037	J	Trans., PTTN63	BB
T1702	95K129615018	J	Trans., DTTJ01	AQ
⚠ T1703	95K348295002	J	Trans., E1217-9001	BP

RDENC0149CEZZ
POWER/BALLAST/INPUT UNIT (Continued)

Ref. No.	Part No.	★	Description	Code
CONTROLS				
R726	95KUFBA472DB	J	4.7k(B) Voltage Adjust	AB
VR1701	95KUFBA103DB	J	10k(B) Power Adjust	AC
VR1702	95KUFBA222DB	J	2.2k(B) Power Adjust	AB
CAPACITORS				
⚠ C701	95KUGFZ474FE	J	0.47 Film	AH
⚠ C705	95KUGBQ121CH	J	120 400V Block Cap.	AP
⚠ C706	95KUGBQ121CH	J	120 400V Block Cap.	AP
⚠ C707	95KUGFQ104FB	J	0.1 400V Film	AE
⚠ C708	95KUGCU221AK	J	220p 1kV Ceramic	AC
⚠ C709	95KUGCU221AK	J	220p 1kV Ceramic	AC
⚠ C710	95KUGFF104BQ	J	0.1 50V Film	AC
⚠ C711	95KUGFF473BQ	J	0.047 50V Film	AB
⚠ C712	95KUGFF473BQ	J	0.047 50V Film	AB
⚠ C713	95KUGCF102CB	J	1000p 50V Ceramic	AB
⚠ C714	95KUGFF104BQ	J	0.1 50V Film	AC
⚠ C715	95KUGAF010RV	J	1 50V Electrolytic	AC
⚠ C716	95KUGCZ472CH	J	4700p Ceramic	AD
⚠ C717	95KUGCZ472CH	J	4700p Ceramic	AD
⚠ C718	95KUGFF104BQ	J	0.1 50V Film	AC
C719	95KUGCS331AA	J	330p 500V Ceramic	AC
C720	95KUGAD471PU	J	470 25V Electrolytic	AE
C721	95KUGAD221RV	J	220 25V Electrolytic	AD
C722	95KUGCS331AA	J	330p 500V Ceramic	AC
C723	95KUGAB471PT	J	470 10V Electrolytic	AC
C724	95KUGAB471RX	J	470 10V Electrolytic	AE
C725	95KUGCS331AA	J	330p 500V Ceramic	AC
C726	95KUGAE101RX	J	100 35V Electrolytic	AD
C727	95KUGAD221RV	J	220 25V Electrolytic	AD
C728	95KUGCS331AA	J	330p 500V Ceramic	AC
C729	95KUGAD121PP	J	120 25V Electrolytic	AD
C730	95KUGAC470RX	J	47 16V Electrolytic	AC
C731	95KUGCS331AA	J	330p 500V Ceramic	AC
C732	95KUGAD561PU	J	560 25V Electrolytic	AE
C733	95KUGAC101RX	J	100 16V Electrolytic	AD
C734	95KUGAC471RX	J	470 16V Electrolytic	AE
C737	95KUGFF473BQ	J	0.047 50V Film	AB
C738	95KUGAB470RV	J	47 10V Electrolytic	AC
⚠ C739	95KUGFQ223FB	J	0.022 400V Film	AE
⚠ C740	95KUGFQ223FB	J	0.022 400V Film	AE
C741	95KUGFF103BQ	J	0.01 50V Film	AB
C1701	95KUGCU101AV	J	100p 1kV Ceramic	AC
C1702	95KUGFQ225HS	J	2.2 400V Film	AM
C1703	95KUGCS682AQ	J	6800p 500V Ceramic	AD
C1704	95KUGFQ103FB	J	0.01 400V Film	AC
C1705	95KUGFF103BQ	J	0.01 50V Film	AB
C1706	95KUGFF104BQ	J	0.1 50V Film	AC
C1707	95KUGCU222BV	J	2200p 1kV Ceramic	AD
C1708	95KUGAE221PU	J	220 35V Electrolytic	AE
C1709	95KUGFF682BQ	J	6800p 50V Film	AC
C1710	95KUGCU472BR	J	4700p 1kV Ceramic	AE

Ref. No.	Part No.	★	Description	Code
CAPACITORS (Continued)				
C1711	95KUGFF104BQ	J	0.1 50V Film	AC
C2307	95KUGAC470RV	J	47 16V Electrolytic	AC
C2308	95KUGAC470RV	J	47 16V Electrolytic	AC
C2309	95KUGAF1R0SX	J	1 50V Elect. (N.P)	AD
C2310	95KUGAC102FE	J	1000 16V Electrolytic	AE
C2311	95KUGFF471BQ	J	470p 50V Film	AC
C2312	95KUGFF104BQ	J	0.1 50V Film	AC
C2313	95KUGFF104BQ	J	0.1 50V Film	AC
C2401	95KUGAC100RV	J	10 16V Electrolytic	AC
C2402	95KUGAC100RV	J	10 16V Electrolytic	AC
C2403	95KUGFF103BQ	J	0.01 50V Film	AB
C2404	95KUGAC100RV	J	10 16V Electrolytic	AC
C2405	95KUGAC101RV	J	100 16V Electrolytic	AD
RESISTORS				
⚠ R701	95KUEEC474BE	J	470k 1/2W Carbon	AA
⚠ R703	95KUEZ0262ZB	J	Thermistor, 5D-11	AF
⚠ R704	95KUEGGR10AK	J	0.1 5W Cement	AE
⚠ R705	95KUEFE563AV	J	56k 2W Metal Film	AC
⚠ R706	95KUEFD271BH	J	270 1W Carbon	AB
⚠ R707	95KUEEC824BE	J	820k 1/2W Carbon	AA
⚠ R708	95KUEFD271BH	J	270 1W Metal Film	AB
⚠ R709	95KUEEB100BE	J	10 1/4W Carbon	AA
⚠ R710	95KUEFD393BH	J	39k 1W Metal Film	AB
⚠ R711	95KUEFD393BH	J	39k 1W Metal Film	AB
⚠ R712	95KUEFD393BH	J	39k 1W Metal Film	AB
⚠ R713	95KUEEC471BE	J	470 1/2W Carbon	AA
⚠ R714	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
⚠ R715	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
⚠ R716	95KUEEB153BE	J	15k 1/4W Carbon	AA
⚠ R718	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
⚠ R719	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
⚠ R720	95KUEEB102BE	J	1k 1/4W Carbon	AA
⚠ R721	95KUEEB102BE	J	1k 1/4W Carbon	AA
⚠ R722	95KUEEB102BE	J	1k 1/4W Carbon	AA
R723	95KUEEB102BE	J	1k 1/4W Carbon	AA
R724	95KUEEB102BE	J	1k 1/4W Carbon	AA
R725	95KUEEB153BE	J	15k 1/4W Carbon	AA
R726	*See Controls*			
R727	95KUEEB392BE	J	3.9k 1/4W Carbon	AA
R728	95KUEFC390AV	J	39 1/2W Metal Oxide	AB
R729	95KUEEB561BE	J	560 1/4W Carbon	AA
R730	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
R731	95KUEEB103BE	J	10k 1/4W Carbon	AA
R732	95KUEEB103BE	J	10k 1/4W Carbon	AA
R734	95KUEBBR27AM	J	0.27 1/4W Fuse Resistor	AC
R735	95KUEEB102BE	J	1k 1/4W Carbon	AA
R736	95KUEEB182BE	J	1.8k 1/4W Carbon	AA
R737	95KUEEB182BE	J	1.8k 1/4W Carbon	AA
R738	95KUEEC151BE	J	150 1/2W Carbon	AA
R739	95KUEEC151BE	J	150 1/2W Carbon	AA
R740	95KUEEB102BE	J	1k 1/4W Carbon	AA
R741	95KUEEB102BE	J	1k 1/4W Carbon	AA
⚠ R742	95KUEBBR10AN	J	0.1 1/4W Fuse Resistor	AC

RDENC0149CEZZ
POWER/BALLAST/INPUT UNIT (Continued)

RESISTORS (Continued)

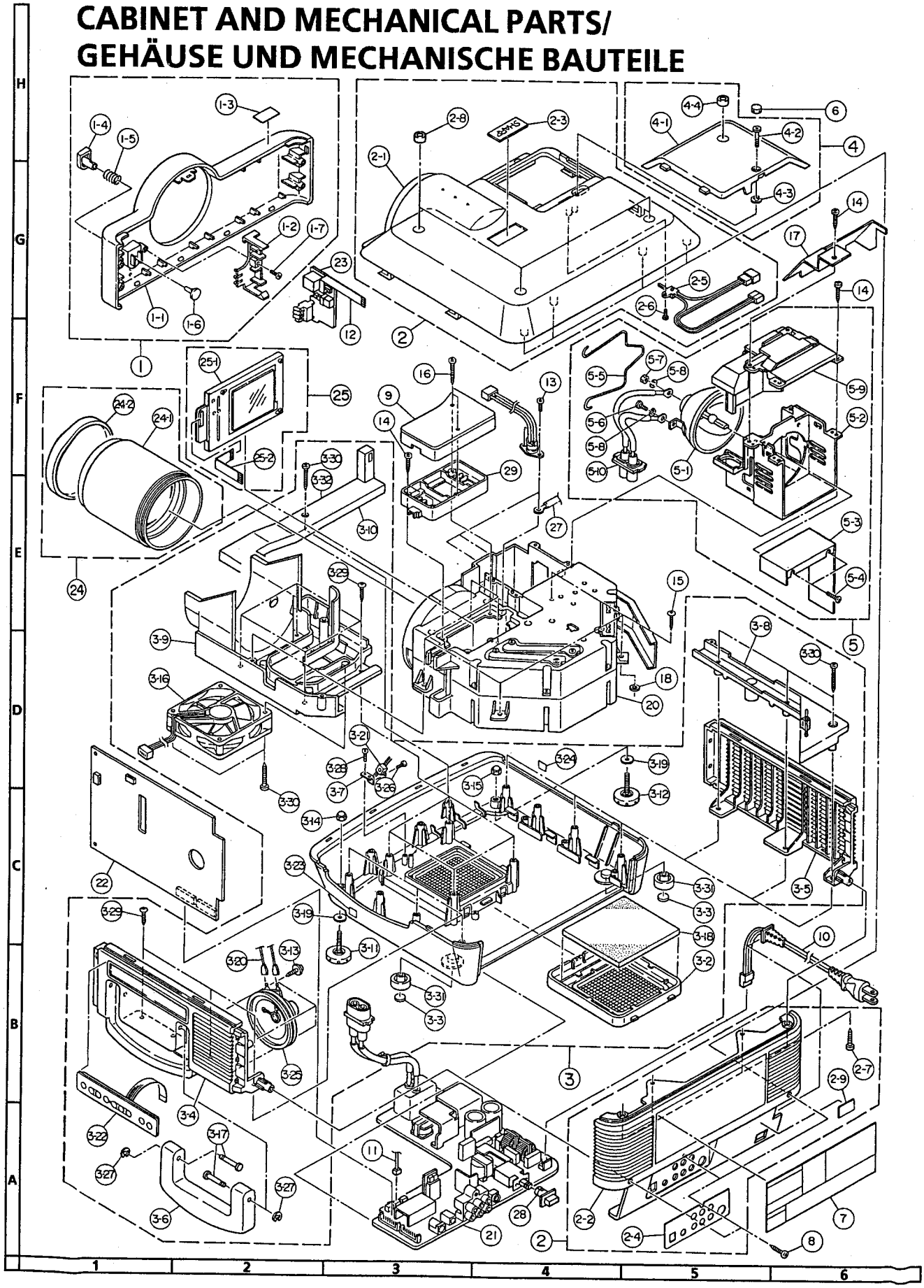
Ref. No.	Part No.	★	Description	Code
⚠ R743	95KUEEC122BE	J	1.2k 1/2W Carbon	AA
R744	95KUEEB102BE	J	1k 1/4W Carbon	AA
R745	95KUEEB102BE	J	1k 1/4W Carbon	AA
R746	95KUEEB102BE	J	1k 1/4W Carbon	AA
R747	95KUEEB102BE	J	1k 1/4W Carbon	AA
R748	95KUEEB102BE	J	1k 1/4W Carbon	AA
R749	95KUEEC102BE	J	1k 1/2W Carbon	AA
R750	95KUEEB102BE	J	1k 1/4W Carbon	AA
R751	95KUEFD681BH	J	680 1W Metal Film	AC
R752	95KUEEB103BE	J	10k 1/4W Carbon	AA
R753	95KUEEB103BE	J	10k 1/4W Carbon	AA
R754	95KUEFD1R0BF	J	1 1W Metal Film	AC
R755	95KUEFD1R0BF	J	1 1W Metal Film	AC
R756	95KUEEB102BE	J	1k 1/4W Carbon	AA
R757	95KUEEB221BE	J	220 1/4W Carbon	AA
R758	95KUEEB103BE	J	10k 1/4W Carbon	AA
R759	95KUEEB103BE	J	10k 1/4W Carbon	AA
R760	95KUEEC332BE	J	3.3k 1/2W Carbon	AB
R761	95KUECC825AE	J	8.2M 1/2W Solid	AB
R762	95KUECC825AE	J	8.2M 1/2W Solid	AB
R763	95KUEBBR10BA	J	0.1 1/4W Fuse Resistor	AC
R764	95KUEEB102BE	J	1k 1/4W Carbon	AA
R765	95KUEEB103BE	J	10k 1/4W Carbon	AA
R766	95KUEEB103BE	J	10k 1/4W Carbon	AA
R1701	95KUEEB470BE	J	47 1/4W Carbon	AA
R1702	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1703	95KUEEB2R2BE	J	2.2 1/4W Carbon	AB
R1704	95KUEFDR12CG	J	0.12 1W Metal Film	AC
R1705	95KUEFDR10CG	J	0.1 1W Metal Film	AC
R1706	95KUEEB271BE	J	270 1/4W Carbon	AA
R1707	95KUEFF182AM	J	1.8k 3W Metal Film	AC
R1708	95KUEFF182AM	J	1.8k 3W Metal Film	AC
R1709	95KUEEC4R7BE	J	4.7 1/2W Carbon	AA
R1710	95KUEEC824BE	J	820k 1/2W Carbon	AA
R1711	95KUEEC824BE	J	820k 1/2W Carbon	AA
R1712	95KUEEC224BE	J	220k 1/2W Carbon	AA
R1713	95KUEEC224BE	J	220k 1/2W Carbon	AA
R1714	95KUEEC823BE	J	82k 1/2W Carbon	AB
R1715	95KUEEC561BE	J	560 1/2W Carbon	AB
R1716	95KUEEB103BE	J	10k 1/4W Carbon	AA
R1717	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1718	95KUEEB470BE	J	47 1/4W Carbon	AA
R1719	95KUEEC104BE	J	100k 1/2W Carbon	AA
R1720	95KUEEC823BE	J	82k 1/2W Carbon	AB
R1721	95KUEEC683BE	J	68k 1/2W Carbon	AB
R1722	95KUEEC683BE	J	68k 1/2W Carbon	AB
R1723	95KUEEC823BE	J	82k 1/2W Carbon	AB
R1724	95KUEEC101BE	J	100 1/2W Carbon	AA
R1725	95KUEEB221BE	J	220 1/4W Carbon	AA
R2301	95KUEEB563BE	J	56k 1/4W Carbon	AA
R2302	95KUEEB563BE	J	56k 1/4W Carbon	AA
R2303	95KUEEB105BE	J	1M 1/4W Carbon	AA
R2304	95KUEEB563BE	J	56k 1/4W Carbon	AA
R2305	95KUEEB563BE	J	56k 1/4W Carbon	AA
R2306	95KUEEB105BE	J	1M 1/4W Carbon	AA
R2307	95KUEEB103BE	J	10k 1/4W Carbon	AA
R2308	95KUEEB473BE	J	47k 1/4W Carbon	AA
R2309	95KUEEB102BE	J	1k 1/4W Carbon	AA
R2310	95KUEEC8R2BE	J	8.2 1/2W Carbon	AA
R2311	95KUEEC8R2BE	J	8.2 1/2W Carbon	AA
R2401	95KUEEB750BE	J	75 1/4W Carbon	AB
R2402	95KUEEB101BE	J	100 1/4W Carbon	AA
R2403	95KUEEB750BE	J	75 1/4W Carbon	AB
R2404	95KUEEB101BE	J	100 1/4W Carbon	AA
R2405	95KUEEB101BE	J	100 1/4W Carbon	AA
R2406	95KUEEB102BE	J	1k 1/4W Carbon	AA
R2407	95KUEEB223BE	J	22k 1/4W Carbon	AA
R2408	95KUEEB103BE	J	10k 1/4W Carbon	AA
R2409	95KUEEB152BE	J	1.5k 1/4W Carbon	AA
R2410	95KUEEB4R7BE	J	4.7 1/4W Carbon	AB
R2411	95KUEEB750BE	J	75 1/4W Carbon	AB
R2413	95KUEEB470BE	J	47 1/4W Carbon	AA
R2414	95KUEEB270BE	J	27 1/4W Carbon	AA

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
⚠ F701	95KPJCZZ0050	J	Fuse, T6.3AH, 250V	AH
F702	95KPJT0085ZZ	J	Fuse, U25, 150°C	AE
FH1	95KPZZ0625ZZ	J	Fuse Holder, ×2 used	AB
FB1701	95KBFZ89206Z	J	Ferrite Bead	AB
FB1702	95KBFZ89206Z	J	Ferrite Bead	AB
FB1703	95KBFZ89206Z	J	Ferrite Bead	AB
FB1704	95KBFZ89206Z	J	Ferrite Bead	AB
⚠ RY701	95KPHZ0131ZZ	J	Relay, G5P-1 DC 12V	AP
	or			
	95KPHZ0096ZZ	J	Relay, DG12D1-0 (M)	AL
⚠ SW701	QSW-P0566CEZZ	J	Switch, Main Power	AL
	QTANJ0632CEZZ	J	Terminal, AV Input	AH
	QSOCD0430CEZZ	J	Socket, S-Video	AE
	QJAKE0008TAZZ	J	Jack, DC + 12V Output	AE
⚠	95KPKZ0194ZZ	J	Plug 2-pin, (PE)	AC
⚠	95KPKZ1102ZZ	J	Plug 2-pin, (BA)	AC
	95KPKZ0522ZZ	J	Plug 2-pin, (SP)	AB
	95KPKZ0540ZZ	J	Plug 4-pin, (FA)	AB
	95KPKZ0541ZZ	J	Plug 3-pin, (FB)	AB
	95KPCZ0187ZZ	J	Connector 14-pin, (EC)	AF
	95KPCZ0186ZZ	J	Connector 16-pin, (ED)	AF
⚠	95KPCZ0194ZZ	J	Connector 2-pin, (LE)	AL

—— End of POWER/BALLAST/INPUT UNIT ——

CABINET AND MECHANICAL PARTS/
GEHÄUSE UND MECHANISCHE BAUTEILE



CABINET AND MECHANICAL PARTS

Ref. No.	Part No.	★	Description	Code
1	CBDYF1055CEK1	J	Front Body Ass'y	AW
1-1	*Not Available*	–	Front Body	—
1-2	GCOVA1542CEZZ	J	LED Cover	AD
1-3	HiNDP4201CESF	J	CAUTION Label	AD
1-4	JBTN-1861CESB	J	Power Button	AD
1-5	MSPRC0146CEFW	J	Spring	AC
1-6	PGiDM0017CE00	J	Guide	AB
1-7	XTASD30P12000	J	Screw, ×1	AA
2	CBDYT1035CEK2	J	Top Body Ass'y	BF
2-1	*Not Available*	–	Top Body	—
2-2	GBDYR1039CEKA	J	Rear Body	AR
2-3	HiNDM2692CESA	J	Badge, "SHARP"	AF
2-4	HiNDP4532CESA	J	Indication Plate, AV Terminal	AE
2-5	QCNW-3997CEZZ	J	Leaf Switch	AK
2-6	XEBSD26P08000	J	Screw, ×1	AA
2-7	XEPSD40P10000	J	Screw (M4×10), ×4	AA
2-8	GCOVA1549CEKA	J	Leg, Top, ×3	AL
2-9	HiNDP4552CESA	J	Indication Plate, AC Power	AC
3	CBDYU1055CEK2	J	Bottom Body Ass'y	BS
3-1	*Not Available*	–	Bottom Body	—
3-2	CDORU1004CE01	J	Bottom Door Ass'y	AN
3-3	GLEGG9027CESB	J	Rubber Leg, Rear, ×2	AB
3-4	HPNLC1696CEKB	J	Side Panel, Right	AQ
3-5	HPNLC1697CEKB	J	Side Panel, Left	AP
3-6	JHNDA1028CESB	J	Handle	AP
3-7	LANGQ1300CEFW	J	Angle, Leaf Switch	AC
3-8	LCHSM0259CEKZ	J	Chassis, Optics Mech.	AM
3-9	LHLDZ1839CEKZ	J	Suction Duct Holder	AM
3-10	PDUC-0011CEKZ	J	Pilot Duct, Lower	AG
3-11	LX-BZ1003CESC	J	Adjaster, Right	AE
3-12	LX-BZ1004CESC	J	Adjaster, Left	AF
3-13	LX-HZ3066CEFD	J	Screw, ×3	AB
3-14	LX-NZ3095CEFD	J	Nut, Right	AA
3-15	LX-NZ3123CEFE	J	Nut, Left	AD
3-16	NFANR0054CE00	J	Suction Fan	AZ
3-17	NSFTH0014CEFW	J	Shaft, for Handle, ×2	AD
3-18	PFiLD0032CEZZ	J	Filter	AD
3-19	PSPAH0398CE00	J	Adjaster Spacer, ×2	AA
3-20	QCNW-3998CEZZ	J	Connecting Wire, Speaker	AD
3-21	QCNW-4065CEZZ	J	Leaf Switch, Bottom	AN
3-22	QSW-Z0034CEZZ	J	Membrence Switch	AV
3-23	—— *Not Used* ——			
3-24	—— *Not Used* ——			
3-25	VSP0080P-H4WA	J	Speaker	AM
3-26	XBPSD26P06000	J	Screw, ×1	AA
3-27	XRESJ30-06000	J	E-Ring, ×2	AA
3-28	XTASD30P12000	J	Screw (M3×12), ×1	AA
3-29	XTASD40P16000	J	Screw (M4×16), ×7	AA
3-30	XTTSD40P35000	J	Screw (M4×35), ×5	AA
3-31	GLEGP9094CESA	J	Rear Leg, ×2	AE
3-32	PDUC-0010CEKZ	J	Pilot Duct, Upper	AH
4	CCOVA1551CEK2	J	Lamp Cover Ass'y	AR
4-1	*Not Available*	–	Lamp Cover	—
4-2	LX-BZ3274CEFD	J	Screw, ×1	AE
4-3	XRESJ30-06000	J	E-Ring, ×1	AA
4-4	GCOVA1549CEKA	J	Leg, Top, ×1	AL
⚠5	*Not Available*	–	Lamp Unit (Lamp/Cage Module)	—
⚠5-1	CLMPF0022DE04	J	Lamp	CC
5-2	PCASZ1002CEKZ	J	Lamp Case, Lower	AR
5-3	PSLDH3028CEFW	J	Light Shielding Plate	AF
5-4	XEPSD30P08000	J	Screw, ×2	AA
5-5	MSPRB0018CEFW	J	Spring	AD
5-6	LX-BZ3270CEFN	J	Screw	AA
5-7	LX-NZ3108CEFN	J	Nut	AA
5-8	LX-WZ3102CEFN	J	Washer	AA
5-9	PCASZ1003CEKZ	J	Lamp Case, Upper	AR
5-10	QPLGN0156FJZZ	J	Plug	AN
6	GCOVA1550CESA	J	Hole Cover	AD
7	HiNDP4531CESA	J	Model Label	AM
8	LX-HZ3067CESE	J	Screw, ×1	AC
9	PDUC-0009CEKZ	J	Panel Duct	AF
⚠10	QACCV2012CESA	J	AC Cord	AP
⚠10	CACCB5014CE01	J	AC Cord Ass'y (For England and Hong Kong only)	AY
⚠10	QACCL3016CESA	J	AC Cord (For Australia and New Zealand only)	AR
11	QCNW-4044CEZZ	J	Connecting Wire	AF
12	QCNW-4045CEZZ	J	Connecting Wire	AD
13	XEPSD30P06000	J	Screw (M3×6), ×3	AA
14	XEPSD40P12000	J	Screw (M4×12), ×4	AA
15	XTASD40P16000	J	Screw (M4×16), ×5	AA
16	XTASD40P20000	J	Screw (M4×20), ×2	AA
17	LANGH0123CE00	J	Light Shielding Plate	AH
18	XWHSD40-08100	J	Washer	AA
19	—— *Not Used* ——			
20	CCHSK0019CE01	J	Optics Mech. Ass'y	CE
21	*Not Available*	–	Power/Ballast/Input Unit	—
22	*Not Available*	–	Main Unit	—
23	*Not Available*	–	R/C Receiver Unit	—
24	CLNS-0050CE01	J	Projection Lens Ass'y	CA
24-1	*Not Available*	–	Projection Lens	—
24-2	PCAPH1037CESA	J	Lens Cap	AG
25	*Not Available*	–	LCD Module Unit	—
25-1	RLCDP0007CEZZ	J	LCD Module	DA
25-2	QCNW-3751CEZZ	J	Connecting Wire, (LCD)	AL
26	LX-HZ3087CESE	J	Screw, ×2	AC
27	RH-HZ0045CEZZ	J	Thermistor	AQ
28	JKNBP1065CESB	J	Button, Main's Power	AC
29	LHLDZ1869CEZZ	J	Panel Holder	

— End of CABINET AND MECHANICAL PARTS —

Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESSORIES

ACCESSORIES

QPLGA0010GEZZ	J		AC Plug Adaptor (Not for Europe, England, Hong Kong, Australia and New Zealand)	AF
QSOCZ0305CEZZ	J		21-pin Plug (For Europe and England only)	AQ
RRMCG1143CESA	J		Infrared R/C Unit	BA
HiNDP4534CESA	J		Inverting Label	AE
TiNS-5589CEZZ	J		Operation Manual	AS

ACCESSORIES (*NOT REPLACEMENT ITEM*)

TCADS3003CEZZ	–		SS List (Not for Europe, England, Hong Kong, Australia and New Zealand)	—
TGANE0050TAZZ	–		Guarantee Card (For Australia and New Zealand only)	—
UBATU0026GEZZ	–		Dry Batteries, (2 pcs)	—

—— End of SUPPLIED ACCESSORIES ——

PACKING PARTS
(*NOT REPLACEMENT ITEM*)

SPAKC4772CEZZ	–		Packing Case	—
SPAKP0755CEZZ	–		Polystyrene Mat	—
SPAKX2629CEZZ	–		Buffer Material	—
TLABK0001TAZZ	–		Number Label	—

—— End of PACKING PARTS ——

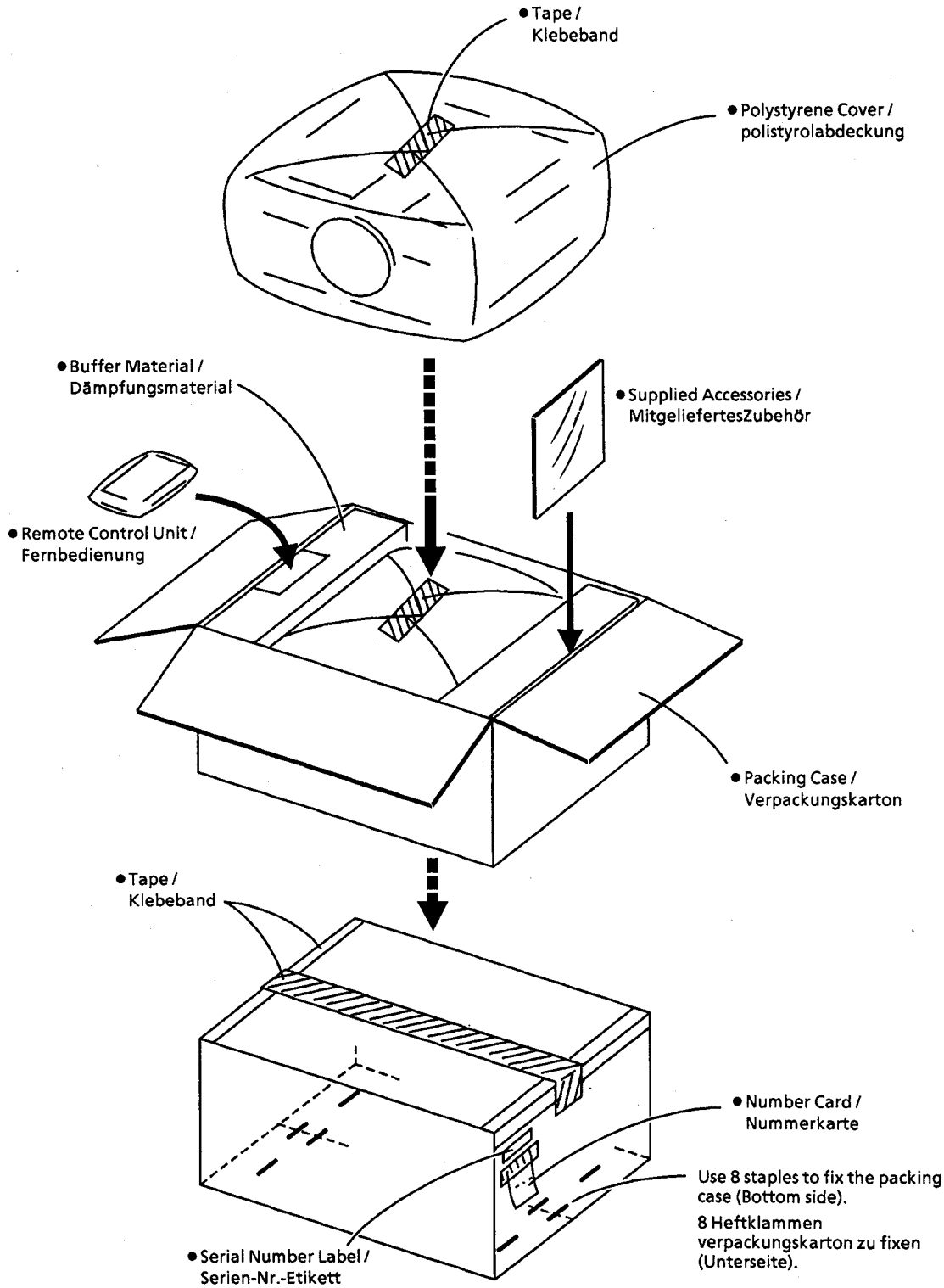
Ref. No.	Part No.	★	Description	Code

SERVICE PARTS

QCNW-4071CEZZ	J		Extension Cable, Power/Ballast/Input Unit ⇔ Main Unit	BB
QCNW-4072CEZZ	J		Extension Cable, Power/Ballast/Input Unit ⇔ Main Unit	BA

—— End of SERVICE PARTS ——

PACKING OF THE SET
VERPACKUNG DES GERÄTS


● Tape / Klebeband
● Polystyrene Cover / polistyrolabdeckung
● Buffer Material / Dämpfungsmaterial
● Supplied Accessories / MitgeliefertesZubehör
● Remote Control Unit / Fernbedienung
● Packing Case / Verpackungskarton
● Tape / Klebeband
● Number Card / Nummerkarte
Use 8 staples to fix the packing case (Bottom side).
8 Heftklammen verpackungskarton zu fixen (Unterseite).
● Serial Number Label / Serien-Nr.-Etikett

XV-370P

SHARP

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